

Locking down Linux

Security, regulatory compliance and intellectual property law were all hot topics at last week's LinuxWorld in Boston. **PAGE 8.**

Clear Choice Test: Wireless multimedia

Ruckus Wireless offers a MIMO-like multimedia access point. **PAGE 52.**



Share and SharePoint alike

Microsoft is making its SharePoint server the foundation for sharing all the document types produced by Office desktop applications. **PAGE 29.**

NETWORKWORLD

The leader in network knowledge ■ www.networkworld.com

April 10, 2006 ■ Volume 23, Number 14

WiderNet

Secret security weapon

Vendors turn to OPSWAT to better their products.

BY ELLEN MESSMER

There are dozens of brands of anti-virus, anti-spyware, desktop firewall and VPN products, and Benny Czarny has made it his business to know them all inside and out.

Eight other engineers at OPSWAT, the San Francisco company that Czarny founded in 2002, do the same. Why? So that other IT companies, now gung-ho on the concept of checking for anti-virus, anti-spyware, VPN or patch updates before allowing network access, can spare themselves the time-consuming task of keeping up with all the

See OPSWAT, page 60



COLIN JOHNSON

Cisco, Juniper pry open WAN links

BY TIM GREENE AND DENISE DUBIE

Rivals Cisco and Juniper are set to announce products that could bolster the speed and efficiency of corporate wide-area connections.

While not going toe-to-toe with their new products, both companies are addressing problems that arise when corporations consolidate their servers, forcing more traffic to traverse a WAN to centralized data centers.

Until recently, corporate IT customers accepted buying individual boxes for server load-balancing, security such as SSL offloading and firewall capabilities. But with resistance to rolling out niche boxes growing, vendors such as Cisco are looking to consolidate features.

The company this week is expected to announce a

multifunction blade for its Catalyst 6500 switches that promises to speed and secure application traffic.

Separately, Juniper plans to announce software at May's Interop conference that will let carriers manage Juniper WAN-acceleration boxes as part of customer services that could let businesses put off buying larger, more expensive WAN connections.

Cisco's Application Control Engine (ACE) is a blade that slides into its Catalyst 6500 switches and performs several functions typically handled by load balancers, compression devices and application-acceleration devices,

See WAN, page 12

► Cisco's termination of its venerable 2600 router platform isn't catching users by surprise. Page 12

Storage virtualization off to a slow start

BY DENI CONNOR

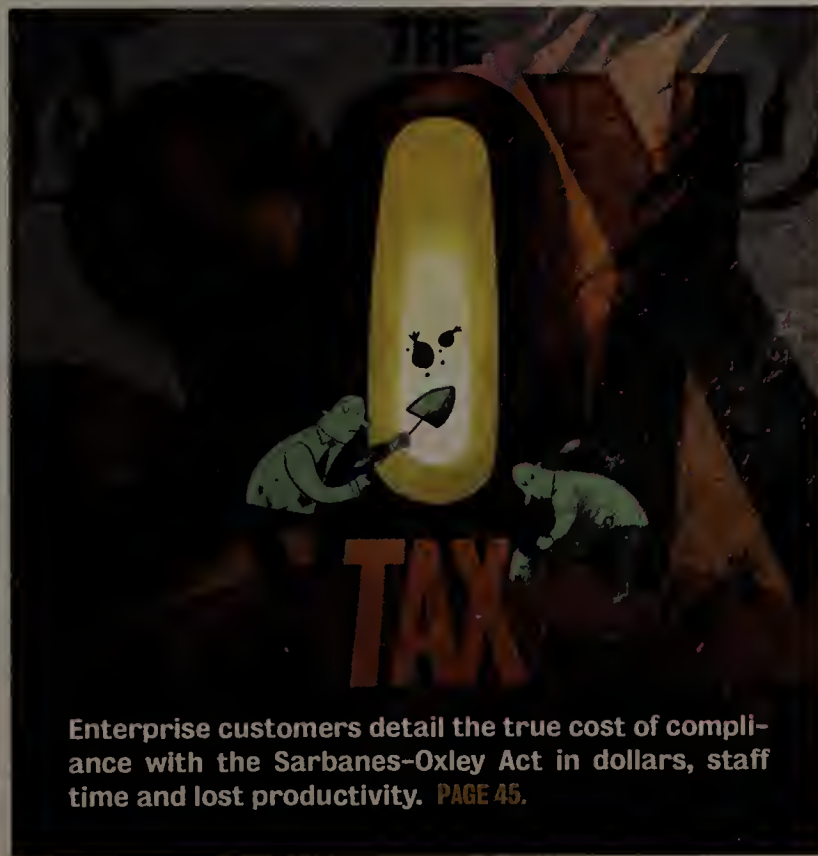
SAN DIEGO — Three years' worth of market hype hasn't been able to overcome this apparent truth about multivendor storage virtualization: Virtually no one is doing it.

At Storage Networking World in San Diego last week, customers

and industry analysts said there are a number of reasons network executives aren't rushing out to buy intelligent Fibre Channel switches or appliances that virtualize or pool the storage resources on arrays from different vendors.

"Heterogeneous — that's a good

See Virtualization, page 14



Enterprise customers detail the true cost of compliance with the Sarbanes-Oxley Act in dollars, staff time and lost productivity. **PAGE 45.**

NOAH Z. JONES

Start-up touts 'search unplugged'

Search the Web from your laptop or handheld — without an Internet connection of any kind?



NETBUZZ
Paul McNamara

This seeming impossibility is what a Bellevue, Wash., start-up called Web-aroo has set

out to realize — the company calls it "search unplugged" — and even company President Brad Husick concedes that he found the idea crazy at first.

See Net Buzz, page 61

IBM®



IBM, the IBM logo, Tivoli and Express Middleware are registered trademarks of International Business Machines Corporation in the United States and/or other countries. ©2006 IBM Corporation. All rights reserved.



Tivoli. Express

_INFRASTRUCTURE LOG

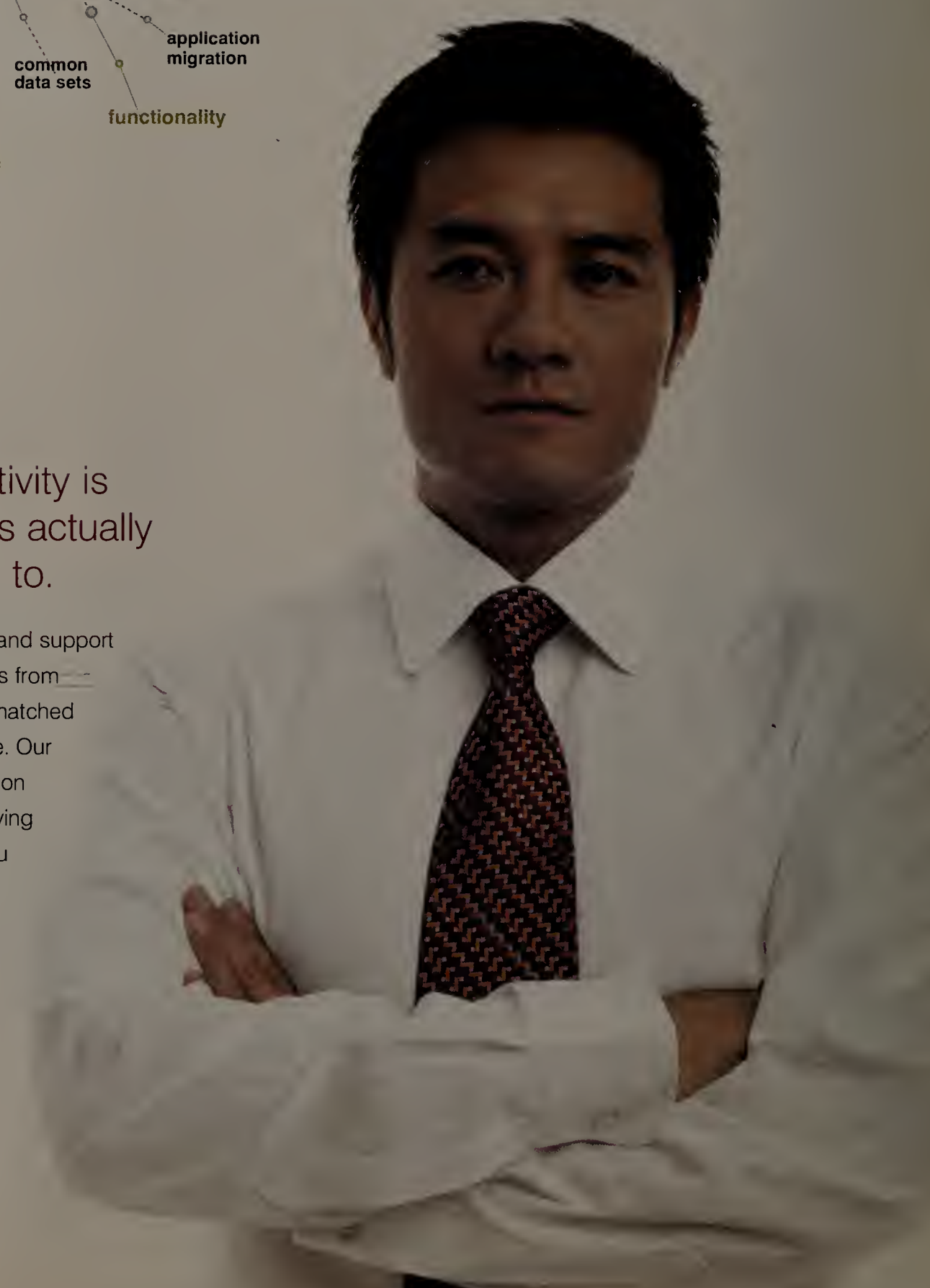
_DAY 49: Things are out of control. Our system's just not secure, flexible or reliable enough. Gil bought some "infrastructure bloodhounds" online. He says they can sniff out any problem.

_DAY 50: Bloodhounds aren't as good at sniffing out network problems as they are at chewing Ethernet cables.

_DAY 52: I've got it: IBM Tivoli Express middleware. It's a series of I.T. management solutions designed and priced for mid-sized businesses like us. It's secure, boosts uptime, and protects our data with automated backups. Our IBM Business Partner even customized and implemented it for us.

_Remind Gil: dog hair and computers, very bad combo.

Get the Guide to simple, fast, secure I.T. Management at:
IBM.COM/TAKEBACKCONTROL/SIMPLE



In my Open Enterprise, productivity is up because workgroup solutions actually work the way groups want them to.

Workgroup solutions from Novell.
This is the way to connect your Open Enterprise.

This is **Your** Open Enterprise.™
www.novell.com/connect

4.10.06 NETWORKWORLD

News

- 8** Users at **LinuxWorld** talk up security.
- 8** **Microsoft patch** causes users pain.
- 10** **Cellular, Wi-Fi** convergence on display.
- 12** **Cisco** pulling plug on three router lines.
- 14** **Carrier consolidation** pushed Alcatel/Lucent deal.
- 16** Microsoft executive warns of **rootkits**.

Net Infrastructure

- 19** All eyes on Alcatel-Lucent merger.
- 19** Symantec tunes up its IM monitoring.
- 22** **Mike Rothman:** Xenophobia is bad for the security business.

Enterprise Computing

- 25** Nokia eyes corporate mobility.
- 25** EMC software archives e-mail and more.
- 27** Microsoft announces virtualization freebie.

Application Services

- 29** Microsoft revamps SharePoint server.
- 29** LifeRay overhauls open source portal software.
- 30** **Scott Bradner:** 'Net as a political tool, almost a joke.

Service Providers

- 31** **Johna Till Johnson:** Why the Internet's not a utility.
- 31** VeriSign embracing mobile services.

Technology Update

- 35** Patch proxy eases update pressure.
- 35** **Steve Blass:** Ask Dr. Internet.
- 38** **Mark Gibbs:** Portable multimedia.
- 38** **Keith Shaw:** Cool tools, gizmos and other neat stuff.

Opinions

- 42** **On Technology:** Linux on desktop warming up.
- 43** **Joel Synder:** When a product is better than the company.
- 43** **Thomas Nolle:** Will the AT&T-BellSouth merger hurt IP TV?
- 61** **BackSpin:** The theory of alternate meetings.

Management Strategies

- 55** **Hot IT jobs:** Managing your most important IT suppliers requires attention and dedication. Employers look for well-rounded tech talent with application development and infrastructure skills, and vertical experience.

COOL TOOLS

The Flash Wristband has a USB flash storage drive with 256MB of capacity and lets you keep your files right at hand.

Page 38

Features



Companies complain they're spending millions of dollars to comply with the Sarbanes-Oxley Act — money that could be better spent making their companies more productive and competitive. **Page 45.**

Clear Choice Test: Wireless Multimedia

Ruckus Wireless offers MIMO-like multimedia access point. **Page 52.**

NETWORKWORLD
CLEAR CHOICE

Network World, 118 Turnpike Road, Southborough, MA 01772; **Phone:** (508) 460-3333; **Fax:** (508) 490-6438; **E-mail:** nw.news@nww.com; **STAFF:** See the masthead on page 16 for more contact information. **REPRINTS:** (717) 399-1900

Phone: (508) 490-6444; **Fax:** (508) 490-6400; **E-mail:** nwcirc@nww.com; **URL:** www.subscription.com

Online www.networkworld.com

Available only on NetworkWorld.com

CTIA 2006

Cool Tools Editor Keith Shaw was in Las Vegas last week and blogs from the show about unhappy cell phone users and the longest cab line in history, among other things. **DocFinder: 2935**

ITVideo: Taking on Google in the enterprise

Siderean Software's Robert Petrossian takes the *Network World* Hot Seat to talk about the power of enterprise search and why consumer-oriented tools just

don't cut it. **DocFinder: 2936**

WS-Sudoku

Love Sudoku? Enjoy Web services? Executive Editor Adam Gaffin says you should check out WS-Sudoku, a multiplayer version of Sudoku that relies on Web services. **DocFinder: 2937**

All-Star call for entries

Get recognition for your cool network project. Enter our 2006 Enterprise All-Star Award competition. **DocFinder: 2436**

Online help and advice

Extending Wi-Fi range

Help desk guru Ron Nutter helps a reader improve his signal in his home wireless network. **DocFinder: 2938**

Hosted accounting options

Columnist James Gaskin looks at some online options for QuickBooks and Peachtree that ease aggravation. **DocFinder: 2939**

Is it time for a chief branch architect?

Analyst Robin Gareiss says orga-

nizations need someone creating and coordinating a technology strategy for the branch office. **DocFinder: 2940**

Is the Web Wallet the answer to phishing?

The Alpha Doggs report from the Massachusetts Institute of Technology on Web Wallet, which forces users to compare and then confirm before going to a site instead of just confirming. **DocFinder: 2943**

Seminars and events

WLANs & Enterprise Mobility — Are you ready to know no limits?

Today wireless technology not only avoids the wall socket, it's as capable as the wired LAN, creating a seamless world of integrated, responsive solutions — and opportunities — that form the new architecture of the truly agile enterprise. Not ready? Then attend Wireless LANs & Enterprise Mobility: Know No Limits, the new Technology Tour event this month. Check dates and how to get in free at: **DocFinder: 2941**

BREAKING NEWS

Go online for breaking news every day. **DocFinder: 1001**

Free e-mail newsletters

Sign up for any of more than 40 newsletters on key network topics. **DocFinder: 1002**

What is DocFinder?

We've made it easy to access articles and resources online. Simply enter the four-digit DocFinder number in the search box on the home page, and you'll jump directly to the requested information.

NEWSbits

Keeping VoIP safe

■ With VoIP starting to live up to some of the hype, university researchers are looking to ensure that the technology's momentum in corporate and residential markets won't be ruined by myriad security threats. The National Science Foundation last week said it has issued \$600,000 to the University of North Texas to spearhead development of a multi-university test bed to study VoIP security. Other participants are Columbia University, Purdue University and the University of California-Davis. VoIP spam, denials of service, 911 services and QoS will be among the areas targeted for research during the three-year project. The research also will look at vulnerabilities that emerge from the integration of VoIP and legacy networks. The group of schools plans to disseminate its findings widely to technology developers, academia and others involved in network convergence.

Air space up for sale

■ ARINC, a 77-year-old military and aviation communications company owned primarily by the nation's largest airlines, is up for sale, according to reports. The company employs 3,000 people and had \$890 million in revenue in 2005. It gets two-thirds of its business from the U.S. military, to which it provides wireless systems that let all branches communicate over multiple devices. ARINC systems also are the backbone for some 95% of the U.S. airline industry's air-to-ground communications, and roughly 70% of the global air-to-ground market, the company says. Goldman Sachs is handling the sale, but no buyers have come forward. ARINC was formed in 1929 as a neutral party to manage the infant airline industry's radio frequencies.

Nortel CEO keeps talking tough

■ Nortel will closely examine all its product categories and consider dropping out or seeking a partnership or joint venture anywhere it doesn't hold or forecast a 20% market share or better, President and CEO Mike Zafirovski said last week at the CTIA Wireless trade show in Las Vegas. Nortel said in a filing to the Ontario Securities Commission that it will restate revenue for some periods and defer it to future periods. In areas where that doesn't look real-

COMPENDIUM

Viral batteries

MIT researchers have genetically modified viruses to ingest and then lay down thin layers of cobalt oxide and gold — which could then one day be used to help build new, ultra-dense batteries with more of a charge.

Read more at

www.nwdocfinder.com/2945.



TheGoodTheBadTheUgly

< Firefox breaks barrier. Advocates of competition are smiling over the latest browser market share numbers from audience measurement firm Net Applications: Firefox, the free, open source Web browser from Mozilla.org, quietly gained enough users in March to finally grab 10% of the Web browser market. Microsoft's Internet Explorer held nearly 85%.

No rush to RFID? Kevin Ashton, director of the MIT center that developed RFID and an executive with a company that sells RFID readers, warned attendees at a security conference last week that security and other concerns might mean it is decades before the full RFID revolution unfolds. "There's a lot of work to be done," he said.

For sale: Company laying off 5,000 people.

Hmmm, maybe not the most enticing ad in the world, but that's what Computer Sciences Corp. has to offer. The systems integration and outsourcing services company, which has 80,000 workers worldwide, says it has received several buyout offers and has retained Goldman Sachs to advise on a possible deal.

{quote of the week}
{quote of the week}
{quote of the week}

"I used to joke that every time Andy would make a faster processor, Bill would simply use it all up. It was like an arms race. But it isn't really funny; it's tragic. Software has gotten too fat and unreliable. Linux too."

Nicholas Negroponte, chairman of the One Laptop Per Child program, speaking at LinuxWorld on the struggle to come up with a simple, fast \$100 laptop for children in developing countries.

istic, it will consider partnering with other companies or pulling out. If results don't meet goals in a particular geographic area, it may also make changes on a regional basis, he added. In technology categories that are just emerging, namely Internet Protocol Multimedia Subsystems and WiMAX wireless broadband technology, Nortel aims to lead the market and will give itself three to five years to achieve that goal, he said. As part of a massive renovation of the company he took over late last year, Zafirovski also is leading big changes in executive ranks and aims to make services and applications a much bigger part of the business.

Berners-Lee details Semantic Web

■ Web creator Tim Berners-Lee says the next phase of the Web, dubbed the Semantic Web, could start making its presence felt at companies in the next couple of years. He provided an update on the project last week to more than 400 attendees at the MIT

Information Technology Conference. The basic idea behind the Semantic Web is to better enable sharing of data, including what Berners-Lee calls pre-Web data, such as that socked away in spreadsheets and databases. A big part of the effort is making data better understood by computers, and the Semantic Web features a collection of technologies designed to support that goal. These include the Resource Description Framework, which Berners-Lee says "is to data what HTML is to documents." RDF relies on technologies such as XML, universal resource identifiers and less familiar technologies and languages such as OWL and SparQL. Berners-Lee says getting people to appreciate the goal of the Semantic Web remains challenging, just as it was difficult to get people to understand the World Wide Web before it existed. Berners-Lee is an MIT researcher and director of the World Wide Web Consortium.

Govt. firms don't abide by law

■ According to a Government Accountability Office study released last week, government agencies that use information services firms for everything from law enforcement to counterterrorism data-gathering do not protect the privacy of the citizens' data they use. The GAO analyzed the Justice Department, the Department of Homeland Security and two other agencies that use outside companies to collect and maintain billions of electronic files about Americans. These agencies often do not limit the collection or use of information about law-abiding citizens, as required by the Privacy Act of 1974, and don't ensure the accuracy of the information they buy, according to the GAO report. That's in part because of a lack of clear guidance from the agencies and the Office of Management and Budget on guidelines known as fair information practices, the report said.

CHANGE = STABILITY

If there's one constant in business today, it's change. But large or small, internal or external, change doesn't have to impede IT service delivery. Think of change as an opportunity for IT to satisfy fluctuating demand while maintaining a stable, productive work environment. With integrated CA software solutions for service management and service availability, you can unify and simplify the way you manage complex IT services across the enterprise. Anticipate and prioritize shifting demand. Automate processes to ensure timely delivery and reliability of service. And leverage industry best practices such as ITIL. It's all possible with our unique approach to managing technology called Enterprise IT Management (EITM). To learn more about how CA solutions can stabilize change to create a true service-driven IT environment, visit ca.com/deliver.



Users at LinuxWorld talk up security

BY PHIL HOCHMUTH

BOSTON — In conference sessions and hallway discussions at LinuxWorld Expo last week, open source users swapped strategies for hardening Linux servers and building open source applications that can repel hackers, stand up to regulators and survive the scrutiny of intellectual-property lawyers.

One company betting the server farm on open source is AthenaHealth, a company in Watertown, Mass., that processes insurance claims and manages information for small medical practices and large hospitals. The company has built a large extranet application based on Linux servers running Oracle, Apache Web Server and a modified version of the open source SugarCRM application.

"Open source doesn't really increase our security risk; our risk is quite large for plenty of other reasons," said AthenaHealth CTO Bob Gatewood, whose company stores 15 million medical records, as well as Social Security and credit card numbers for the patient data it manages.

Gatewood delivered a keynote

speech at the conference, which drew about 8,000 attendees and 150 exhibitors.

"It doesn't make a difference if your infrastructure is open source or not," Gatewood said. "The security issues with proprietary software are pretty well publicized, but I don't think in general there are any fewer security holes in open source stuff. ... Keeping the network secure comes down to our testing process."

When developers want to use a new open source module, the software is deployed in a test network where its behavior is studied, and it is put through security and quality-assurance testing. This process is in place to handle any open source legal and technical risks.

"This triggers a process where we take a look at the license and give it to our lawyers, and our release engineers take a look at the code to determine if it's safe," he said.

About the intellectual-property aspects of open source, Gatewood said, "we have to look at what [open source] we're using. Our lawyers are very much inter-



"Open source doesn't really increase our security risk."

Bob Gatewood, CTO, AthenaHealth

ested in keeping track of what modules and licenses we use, whether it's [General Public License] or something else." Because AthenaHealth does not make major modifications to the open source software it uses, issues of violating open source licenses by tinkering with code are not much of a factor.

Predeployment technical testing of open source code is also an important process for Midwest Tool & Die in Fort Wayne, Ind. It uses Linux servers, Apache and SugarCRM to run its manufacturing and e-commerce systems.

"We test-bed everything," said Craig Swanson, vice president of systems for the manufacturer. "I can duplicate my network now very easily with virtual machines," in order to set up a

full replica of the network for tests. "We have an open-door policy on installing anything you want in the test environment. But we're rigid on documentation, and we're rigid on testing and verifying what packages we can install on the final system."

The company uses Fedora servers, the free, open source version of Red Hat Linux, to run its production environment and Web presence. As a precaution, Swanson uses the open source Mondo Archive tool to take snapshots of its production server images, and keeps backup configurations that can be brought online quickly in case of failures or system problems.

Swanson also uses Security Enhanced Linux (SELinux), a set of Linux policies and access-

control code that limits the ability of hackers to gain access to a server by exploiting weaknesses in the software running on top of the operating system.

"SELinux has been terrific," Swanson said. In addition to vetting code before deployment, SELinux provides another level of assurance that the code won't be exploited. "We deny everything and allow just what we want" into and out of the servers via SELinux policies, he said.

Dominion Diagnostics, a Rhode Island company that provides online medical lab services, also uses SELinux to secure its Web applications and data — which, like AthenaHealth, are scrutinized under such regulations as the Health Insurance Portability and Accountability Act.

"With SELinux, if someone breaks and hacks the applications, fine," said Joseph Morin, network operations manager for Dominion Diagnostics. "But they're not getting anywhere; they can't execute anything I don't want them to," because of the limitations SELinux puts on how applications can use system memory, processors and configuration files.

All of Dominion's Web-facing servers — which run Red Hat Linux — have SELinux turned on, Morin said. While it is a useful tool, he added, configuration and management of policies is complex and arcane — SELinux technology was developed by the National Security Agency, after all. "It's complicated and very technical" to edit policies for how software runs under SELinux, Morin says. But with security threats around Linux rising, Morin said it's standard practice to use SELinux, as well as other open source security enhancement tools such as Tripwire and Swatch, which create alerts when Linux servers are misused.

"Windows and Linux both have different problems," in terms of security, Morin said. "As Linux is more widespread, people are definitely targeting that." ■

Microsoft patch causes users pain

BY JOHN FONTANA
AND ELLEN MESSMER

Companies using Microsoft's ActiveX technology within their Web applications will have to install a patch this week to avoid the possibility that changes in Internet Explorer could affect those applications adversely.

The issue is similar to one users and independent software vendors faced with Windows XP SP2, which included security changes that broke some applications. The potential effects of the ActiveX changes being made in an Internet Explorer security patch slated to ship April 11 are less severe, in that they can change the way some Web-based intranet and Internet applications function but will not shut them down completely.

Microsoft is taking the unusual step of offering a compatibility patch to the April 11 patch that is

Patching Internet Explorer

Microsoft this week is issuing a temporary compatibility patch so corporate users can block changes being made in the way Internet Explorer handles ActiveX controls, which could affect Web-based applications negatively. The temporary patch gives users time to test their applications. Here are Microsoft's recommendations:

Enterprise users:

- Test applications against the ActiveX changes, which were released Feb. 28.
- Deploy the Internet Explorer security update when it ships April 11.
- Deploy the compatibility patch, which blocks the ActiveX changes, as part of the April 11 update, to ensure that applications still function as usual.
- Finish testing applications before June 13, the day the compatibility patch will expire.

Independent software vendors

- Test applications against the ActiveX changes.
- If problems occur, contact Microsoft.
- Release new code before the June 13 expiration of the compatibility patch.

Users

- Upgrade Internet Explorer 6.0 using Windows Update or Microsoft Update.

designed to reverse the ActiveX changes for two months to give users more time to test their applications.

If users don't change their application code, patched versions of Internet Explorer will still load ActiveX controls within those applications, but users will have to click on them before they are activated instead of them automatically being live.

Some users are not pleased about the work involved in making changes.

Doug Sweetman, senior technology officer at Boston-based financial services firm State Street, says he considers the changes, brought about by Microsoft's involvement in a patent-infringement case, to be time-consuming and disruptive for his company.

State Street uses ActiveX in some of its intranet and Internet-facing

See Microsoft, page 10



LINUX

Subscribe to our free newsletter:
DocFinder:1010 www.networkworld.com

When information
comes together,
Blue Rhino sizzles.

Information lives at Blue Rhino, a mid-size company that had a king-size problem. As the #1 brand in propane tank exchange, their information storage needs were doubling every year. But their IT budget wasn't. They chose an EMC[®] solution that gave them less downtime, faster backups, and quicker recovery times. The entire package, hardware and software, delivered a high degree of flexibility at an affordable price, and allowed them to keep their focus on their customers. Read the Blue Rhino profile at www.EMC.com/blueRhino. To see what EMC can do for you, talk to your EMC Velocity² Partner or call 866-796-6369.



Cellular, Wi-Fi convergence on display

CTIA, Wi-Fi Alliance joining forces to certify products.

BY JOHN COX

Announcements at last week's CTIA Wireless show reveal the outlines of emerging hybrid wireless networks, which will let mobile devices use an array of wireless technologies to stay connected with carrier- and enterprise-based

applications.

The annual show attracted an estimated 20,000 attendees to see the latest and greatest in wireless communications technologies, products and services.

New smart-phones are hitting the market with wireless LAN (WLAN) and cellular radios, and in some cases, a Bluetooth radio. More importantly, new wireless-network infrastructure products offer this same radio pairing and include IP Multimedia Subsystem (IMS) software to switch users between networks. New carrier services are recognizing how critical these devices and their enterprise data are, by letting users easily back up contacts, calendars, and other personal and even application data.

Samsung unveiled the T709 handset, a GSM smart-phone that

also includes support for Wi-Fi. The phone allows calls to be switched between Wi-Fi and cellular networks while they are in progress.

A test for convergence

The Wi-Fi Alliance and CTIA announced they are drafting a program to certify interoperability of these new mobile phones, as the alliance does today for Wi-Fi products and CTIA does for traditional cell phones. The initial tests will focus on radio frequency performance attributes such as transmit output power and receive sensitivity. Carriers will be able to see a standard set of metrics for assessing client devices for their networks, said Frank Hanzlik, managing director of the alliance. More details will be released in a few months, he said.

But vendors of all kinds are moving toward hybrid networks.

Boingo Wireless and Kineto Wireless said they're introducing client software that will let dual-mode Windows Mobile 5.0 handsets link with a Kineto server implementing the Unlicensed Mobile Access (UMA) specification. UMA lets a handset subscriber connect over a wireless IP connection, such as one of Boingo's network of 30,000 Wi-Fi hot spots, to access IP-based voice, data and IMS services offered by wireless carriers and operators.

IMS bridging the gap

Nortel has expanded its IMS portfolio with the Wireless Mobility Gateway 6000, which supports the IMS Voice Call Continuity (VCC) standards. The gateway lets service providers bridge between 3G cellular networks and WLAN hot spots and meshes. The gateway supports features such as caller ID, call waiting and call hold, call screening and routing, Short Message Service, and instant messaging.

A similar approach was demonstrated by PCTel and BridgePort Networks. They showed how their IMS software could transfer a voice call from a Windows-based handset between GSM and Wi-Fi networks without dropping the connection. PCTel's Roaming Client-VE (voice-enabled) application worked with BridgePort's NomadicOne IMS Convergence Server. Both products support the VCC standards.

IMS-based services in mobile networks are designed to act as an application overlay spanning cellular and Wi-Fi networks. Mobile workers will have more connectivity options over broader areas, and work on lower-cost WLAN connections when those are available.

An example of carrier-based data-management services is VeriSign's new cell phone backup service. Backup Plus is a hosted self-service capability that lets cellular subscribers back up and restore personal data on mobile phones.

Initially the service will store data in a phone's address book.

Later in 2006, VeriSign plans to add calendar data, pictures, video and audio content. In May Cincinnati Bell is slated to be the first carrier to launch the service.

Other infrastructure news included:

- Sprint Nextel announced a battery of new Evolution Data Optimized (EV-DO) wireless cards, routers and USB cards, and support for enterprise applications on its national EV-DO network. The products will give subscribers more options, including new laptop cards from Novatel Wireless and Sierra Wireless, for connecting to the high-speed cell network. The carrier says it is expanding the network and upgrading it to support slightly increased download speeds but uplinks that increase to an average of 300K to 400Kbps from 70K to 144Kbps.

- Cingular Wireless said it is working with HP to integrate its Universal Mobile Telecommunications System (UMTS)/High Speed Downlink Packet Access (HSDPA) wireless data service into HP laptop computers due out later this year. Many GSM providers are migrating to the UMTS/HSDPA 3G specification.

- BelAir Networks unveiled two outdoor wireless mesh nodes. The BelAir300 has six slots available for any combination of radios, now including cellular base stations. The node can be configured with different radios for client access and for the backhaul mesh links. The new BelAir100C is a two-radio node, and is designed as a midrange offering for moderately loaded networks. It uses a 2.4-GHz radio for client access and a 5-GHz radio for backhaul. Pricing varies with the configuration.

Senior Editor Denise Pappalardo contributed to this story. Additional reporting by IDG News Service.

NEWS ALERTS

Hate hunting for stories on a specific topic? Let the news come to you with *Network World's* latest news alerts — with focuses on security, financials, standards, trade show news and vendor-specific news.

www.networkworld.com

Sign up today DocFinder: 1002

Microsoft

continued from page 8

facing applications. "We have to test [the patch] first to make sure it doesn't break our applications," he says.

Microsoft officials say the time and difficulty required by Web developers to change applications is "scaled based on the number of pages and controls affected."

Some users have already done testing and are working to fix applications.

"A lot of our internal applications rely on ActiveX controls, and the vendor has not updated those yet," says Jay Leal, vice president of technology for the Inter National [stet — two words] Bank in McAllen, Texas. He doesn't characterize the changes as a major application rework, but says developers do have to tweak the way ActiveX controls are loaded.

Some widely deployed programs that use ActiveX controls within the browser include Adobe's Reader and Flash, Apple's QuickTime Player, Microsoft's Windows Media Player, RealNetworks' RealPlayer and Sun's Java Virtual Machine.

Leal, who cites recent patent cases against Research in Motion and eBay, says he believes more of this type of litigation is coming and will possibly be disruptive to corporate users.

"For the most part, Microsoft has helped people along, let them know what is going on, and they are providing a fix for this," he says.

But others say the issue attests to what they have believed all along about the dangers of using ActiveX, which is similar to Java Applets but provides little security and only operates within

Internet Explorer.

"This is giving us more fodder not to have [Internet Explorer] on our desktops," says Keith Mann, network engineer for Harrison School District 2 in Colorado Springs, Colo. "We have made major application decisions where vendors who couldn't guarantee us support outside of [Internet Explorer], we just didn't deal with them."

Microsoft's alterations to the way ActiveX controls are loaded in Internet Explorer are in response to an ongoing patent infringement case brought by Eolas Technologies and the University of California. A jury awarded the pair \$521 million in damages in August 2003. In 2005, a U.S. Court of Appeals overturned the verdict, and a new trial date in district court is expected to be set for this year.

In the interim, Microsoft is making changes that will require ActiveX controls be loaded via scripts instead of embedded in HTML code.

Microsoft is mum on why it is making the changes, citing the ongoing legal dispute, but it has been vocal in recommending that users test their applications before the ActiveX patch ships April 11. It is a required upgrade for Internet Explorer 6.0 running on Windows XP SP2, Windows Server 2000 SP1 and Windows Server 2003 R2.

The compatibility patch is effective until June 13. "We do not expect major incompatibility issues," a Microsoft spokeswoman says. "Microsoft is releasing the compatibility patch because some enterprise customers have given feedback that more time is needed to ensure corporate line-of-business applications are compatible with the ActiveX changes."

Microsoft says the ActiveX changes are applicable only to Internet Explorer and not other applications that host ActiveX



VIRUS & BUG ALERT

Subscribe to our free newsletter:
DocFinder: 1021 www.networkworld.com

nww.com

Video from the show

Watch as Cool Tools columnist Keith Shaw searches the CTIA floor for a new cell phone to replace his 3-year-old antique.

www.nwdocfinder.com/2944

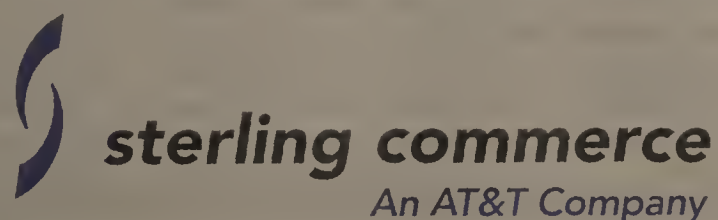
Sterling Commerce leads the world in helping
businesses collaborate with their partners.



Of course, we've had a 30 year head start.

For over 30 years, Sterling Commerce has led the industry in helping successful organizations work more effectively with suppliers, subsidiaries and customers. Now, with the first platform to meet all the challenges of real-world multi-enterprise collaboration, Sterling Commerce can help you achieve end-to-end visibility, and real-time control over shared business processes. So you can make faster, better-informed decisions to help cut costs and accelerate time to market. In fact, a majority of the world's leading companies already depend on us. That's a tough act to follow. Contact us today. Or visit us at **www.sterlingcommerce.com**

BUSINESS APPLICATIONS / BUSINESS INTEGRATION / BUSINESS INTELLIGENCE / BUSINESS PROCESS MANAGEMENT / SOLUTION DELIVERY



WAN

continued from page 1

the company says. The blade will reside in a switch deployed between a server and the WAN to improve traffic flow. It can be segmented logically via virtual partitioning support; one blade can be divided into 250 partitions, Cisco says (see graphic).

Cisco also is announcing upgrades to its Application Velocity System (AVS) device, which provides application-layer security for server farms.

In concert with an ACE blade, AVS 6.0 inspects application traffic, enforces policies and collects logs for security forensics analysis. Cisco says the ACE module has slots for daughter

cards that eventually will support AVS software.

Industry watchers say while Cisco is providing a solid product in ACE, it may have waited too long to wade back into the application-acceleration market, which in 2005 represented about \$1.2 billion in revenue for vendors worldwide, according to Gartner.

Earlier in the decade, Cisco had dominated the technology area, ahead of competitors such as Citrix/NetScaler, F5 Networks and Foundry Networks, but it apparently lost interest with the then-\$300 million market, according to Joel Conover, a principal analyst with Current Analysis. Other vendors such as Radware and Juniper, with its Redline Networks acquisition, also could provide competi-

tion for Cisco's ACE product.

Using technology in its content-switching module (CSM) and adding the AVS technology acquired with FineGround, Cisco is attempting to win back some customers. ACE does not replace the CSM module, though Cisco says it put many CSM features, such as content-switching and server load-balancing, into ACE. Cisco proposes customers run the two modules side by side until it adds more CSM features to the ACE.

"If you're a Cisco customer, you'd have to seriously consider this product, as Cisco is investing in this area with vigor, but if you want absolute best of breed on a feature-to-feature basis today, you might decide to go with a competitor," Conover says.

Some customers say they will at least evaluate the product, but they do require Cisco to provide better management capabilities. "The consolidated functions are nice, in that we can reduce our variety of inventory by using the same chassis, power supplies and sometimes environmental controls into one box," says Brian Jones, network engineering and operations manager at Virginia Polytechnic Institute and State University in Blacksburg, who uses CSM modules in his 6509 switches to provide load-balancing services across the campus.

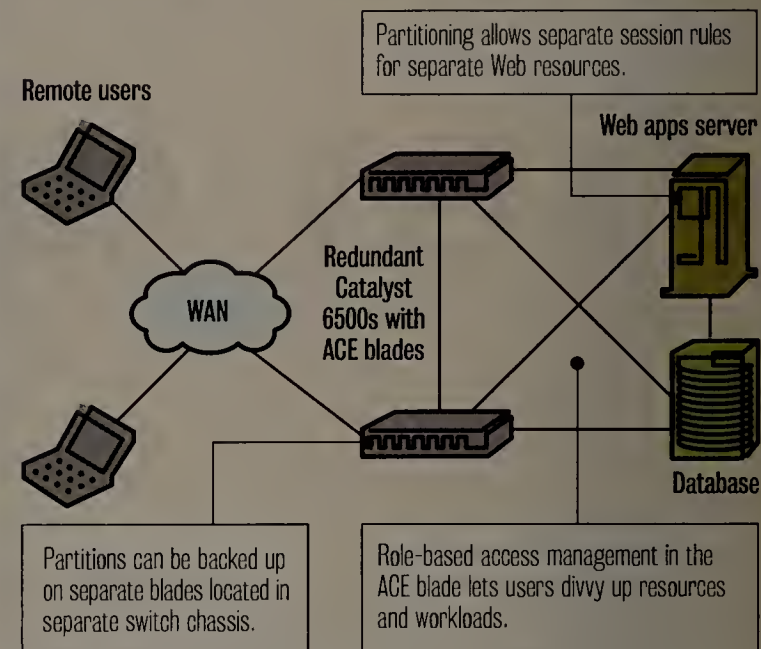
He says he is looking into ACE and considering the advantages of a consolidated platform. "We are hoping the new load-balancing functions of this product will be more redundant. We would like to be able to change portions of a configuration without completely taking the service offline."

On the downside, Jones says, "there are some disadvantages when it comes to network management. Many modules such as the CSM are difficult to manage with fault-management and capacity-planning tools."

Mike Tardif is a Catalyst 6500 customer who is evaluating ACE. Tardif, vice president and general manager of global hosting services at managed outsourced IT services provider Savvis Communications, says the ACE module's performance and management capabilities are making him consider replacing his proprietary systems with it. "The performance and ease of management are very key to us. The folks that monitor and manage the exist-

Hit the WAN accelerator

A new Application Control Engine (ACE) blade for Cisco Catalyst 6500 switches sits in front of servers and databases to speed interaction times with remote users. It lets different rules be applied to different servers or server groups.



Cisco pulling plug on three router lines

BY PHIL HOCHMUTH

Cisco's end-of-life announcement for its 1700, 2600 and 3700 series of router platforms isn't catching users by surprise.

Cisco recently said it will stop selling these platforms in March 2007. Among them, the 2600 is one of Cisco's most widely deployed products, with more than 2 million units shipped. Technical support will continue for the devices until 2012. With plenty of time, users say they've already started to upgrade, but such moves will be gradual.

The bell began tolling for the 1700, 2600 and 3700 series two years ago, when Cisco released its Integrated Services Router (ISR) line — including the 1800, 2800 and 3800 series. Large Cisco shops that rely on hundreds of 2600s as the base of their WAN infrastructure have been preparing slowly for the changeover.

"We're in the process of swapping out our 2600s right now," says Dick Emford, lead network analyst for plastics manufacturer Newell Rubbermaid of Freeport, Ill. The company, which has more than 250 Cisco 2600s installed, has migrated around 30% of its WAN to the ISR 2800, with 2600s making up the other 70%.

"We saw this coming a long time ago, and we've gradually been swapping them out," Emford says of the 2600s. He says the ISRs provide better performance and more features and cost roughly the same. "Under the covers, the ISRs have more memory and lots of built-in features for security and VoIP; it's just a better box."

To ease migration, Newell Rubbermaid prestages all the ISR 2800s it deploys with IOS configurations similar to the retiring 2600s', and tests the newer boxes for backwards compatibility with protocols and services running on the older routers.

"It's not really an issue for us," he says of the swap-out.

The 2600-to-2800 series migration also is happening slowly at Kodak in Rochester, N.Y., which uses more than 50 of the 2600 series routers across its worldwide Frame Relay and IP VPN networks.

"We don't have a regularly scheduled upgrade or refresh cycle for our routers," says John Parsons, project manager for Kodak Global Telecommunications, Worldwide Information Systems. "A lot of our routers come from the service providers, who give them to us as part of a managed service, so we rely on them to make a lot of those changes."

With IT budgets tightening, getting funding for a wide-scale upgrade is hard anyway, he adds. "We're taking [older Cisco routers] out grad-

See 2600, page 16

ing 6500 could manage this as well," he says.

ACE ships this week and comes in three flavors: 4Gbps throughput, priced at \$40,000; 8Gbps, priced at \$60,000; and 16Gbps, priced at \$100,000.

Meanwhile, Juniper plans to announce an upgrade to software for its WX WAN-acceleration devices, which improve wide-area application performance and cram more traffic onto fixed-size WAN links.

Unlike Cisco's ACE blades, WX devices sit at both ends of a WAN link, rather than in front of a data center, and use a variety of methods to compress, optimize and prioritize traffic. By transferring data more efficiently, the devices reduce congestion; by optimizing application transactions at the same time, they improve response times.

The new software will let carriers more easily take over managing these devices for large numbers of customers and provide tools for provisioning them remotely, Juniper says, in much the same way providers control and provision routers in managed router services.

For example, SITA, the IT provider to air transport businesses in Geneva, uses Juniper WAN-acceleration gear as part of a managed service that saves its customers money by reducing their need for higher-bandwidth links.

It does so without benefit of the carrier-grade management software, however. Juniper says it hopes the new software will encourage other providers to offer this type of service, which would eliminate the need for customers to buy their own devices, but would boost their monthly service provider bills.

The ROI of WAN-acceleration devices is so good that businesses large enough to afford them likely wouldn't want to pay a recurring fee for such a service, says Roger Leuchtefeld, senior network engineer for Ameren Services in St. Louis, which uses Juniper WAN acceleration.

"Once they're up and running, you let them cook and do their thing. They don't take a lot of attention," he says. Businesses strapped for cash and staff would be more interested, he says.

"A smaller company with a smaller IT staff that didn't want to purchase it might want to pay an additional fee on top of their WAN costs for the service," he says.

Juniper's competition in WAN acceleration includes F5, Orbital Data and Riverbed. Riverbed says it has 10 service-provider customers using its gear to support managed services, but does not have clearance to name them. ■

WIDE-AREA NETWORKING

Subscribe to our free newsletter.
DocFinder:1025 www.networkworld.com



HP PROLIANT BL35p BLADE SERVER

with ProLiant Essentials Management Software

- Up to 2 Dual-Core AMD Opteron™ 200 Series processors
- High density: Up to 96 servers per rack
- Flexible/Open: Integrates with existing infrastructure
- HP Systems Insight Manager™: Web-based networked management through a single console
- Rapid Deployment Pack: For ease of deployment and ongoing provisioning and reprovisioning
- Integrated Cisco or Nortel switch options

Save up to \$1,200 instantly on the purchase of the HP ProLiant BL35p Blade Server.¹



HP STORAGEWORKS MSA1500cs

with StorageWorks Essentials Management Software

- Up to 24TB of capacity (96 250GB SATA drives)
- Up to 16TB of capacity (56 300GB SCSI drives)
- Ability to mix SCSI and Serial ATA enclosures for greater flexibility
- 2GB/1GB Fibre connections to host

Get 2TB of storage free (\$2,008.80 value)²

Chaos, now under your control.

HP BladeSystem servers offer tools to help you keep pace with fluctuating demands. The HP ProLiant BL35p Blade Server is designed to relieve some of the stress. Its AMD Opteron™ processors offer dual-processor power with breakthrough efficiency. With management features like the Rapid Deployment Pack that lets you deploy and redeploy blades without missing a beat, and a single-view, graphical user interface that streamlines monitoring and configuration, HP BladeSystem servers work with you so you don't have to work so hard. And, bundled with the StorageWorks MSA1500cs, you can reduce the cost and complexity of deploying a storage area network giving you a better return on investment.

Save up to \$1,200 instantly on the purchase of the HP ProLiant BL35p Blade Server.¹

SMART ADVICE > SMART TECHNOLOGY > SMART SERVICES



Call **1-888-223-5441**
Click **hp.com/go/bladescmag49**
Visit **your local reseller**



1. Save up to \$1,200 instantly on the purchase of the HP ProLiant BL35p Blade Server. Offer valid through 4/30/06. 2. Receive up to 2TB of storage free with purchase of HP StorageWorks Modular Smart Array 1500cs devices. Offer valid through 4/30/06. All offers available from HP Direct and participating resellers. Prices shown are HP Direct prices, are subject to change and do not include applicable state and local sales tax or shipping to recipient's destination. Reseller prices may vary. See Web site for full details. Photography may not accurately represent exact configurations priced. Associated values represent HP published list price. AMD, the AMD Arrow Logo, AMD Opteron and combinations thereof are trademarks of Advanced Micro Devices, Inc. ©2006 Hewlett-Packard Development Company, L.P.

Carrier consolidation pushed Lucent

BY JIM DUFFY

It was only a matter of time before consolidation among the big telecom equipment vendors took hold.

The April 2 merger agreement between Lucent and Alcatel shows how suppliers, seeing their carrier customers combine to gain breadth and scale, feel compelled to follow suit.

Nick Maynard, a senior analyst at The Yankee Group, calls the proposed merger "another confirmation of the telecommunications industry experiencing dramatic changes in business models, strategy and operations."

That new structure consists of fewer, larger players for telecom vendors to sell into. It's been

brought about by the multibillion-dollar acquisitions of AT&T and MCI by SBC and Verizon, respectively, and by AT&T's plans to acquire BellSouth. These megamergers have been fueled by increasing competition from cable companies, wireless operators, VoIP providers and low-cost overseas suppliers.

Even competitive local exchange carriers (CLEC) are feeling the urge to merge. In February, CTC and Choice One announced their intent to combine, and two weeks ago they announced plans to acquire Conversent Communications to create what they say will be the second-largest CLEC in the United States.

On the equipment side, Asian

suppliers such as Huawei Technologies and ZTE are becoming formidable competitors globally, consistently and drastically undercutting traditional North American and European vendors on price — and gaining significant market share overseas.

As carriers consolidate, the impact on vendors is manifold. Not only do they lose customers, they lose negotiation leverage on pricing.

The megacarriers can unify their procurement activities for wireline and wireless endeavors, eliminate the buildout of parallel networks (which reduces demand) and vanquish other redundancies.

They need to offer products and

services to fulfill the new scope and scale of their combined customers, eliminate their own redundancies and generate savings. Acquiring one another is seen as a way to do that and remain viable for the long term.

"The entire industry could now be in play," says Tal Liani, an analyst at Merrill-Lynch, in a research report. "We see Ericsson, Siemens and Motorola as potential consolidators and believe that Juniper, Redback, Ciena, Extreme, Foundry, ECI Telecom, and Hammerhead [Systems] are potential targets."

How Lucent, Alcatel match up

Vendors will choose their mates based on gaps they need to fill in their product portfolios. Lucent

and Alcatel have some redundancies in optical and broadband access, but their combination will make them No. 1 in these markets, analysts note.

Their product offerings also align well in wireless. Lucent is strong in Code Division Multiple Access/Wideband CDMA, while Alcatel has a presence in GSM, which is pervasive in Europe. Alcatel also has core and edge routers to complement Lucent's multiservice edge switches, and the combined company would obtain the No. 3 position in this market, analysts say.

Both are strong in professional/integration services. That helped Alcatel win the Project Lightspeed IP TV deal at AT&T, which accounts for 23% of Lucent's \$9.4 billion annual revenue. Combined services will be a \$5 billion business for the merged company.

Both have common visions of next-generation networks built on IP Multimedia Subsystem (IMS) architectures, and a wealth of products to build these infrastructures, company officials say. And lastly, the combined Alcatel/Lucent will generate \$1.7 billion in cost savings within three years, says Lucent CEO Pat Russo, who will head the combined company. Savings will be sought by paring 10% of the combined workforce of 88,000, as well as through elimination of redundancies.

"The combination will create the first truly global communications solutions provider which is a clear leader in convergence," Russo said during a Webcast announcing the merger.

Analysts concur that the timing is right for Alcatel and Lucent, and the telecom equipment industry.

"Given that the [telecom] industry is currently in the midst of a buying cycle — IP TV, FTTX, DSL, optical networking, wireless/IMS — and an operator consolidation cycle, it's good timing . . . to consolidate and concentrate the market," says Ken Twist, vice president of the Technology Consulting and Broadband Networks Practices at Ovum-RHK. ■

Virtualization

continued from page 1

word," says Tony Prigmore, senior analyst for the Enterprise Strategy Group. "You have a classic situation where all the branded vendors are going after their installed base. That's happening with IBM's SAN Volume Controller; it's happening with HP, Hitachi Data Systems and EMC. Vendors are just now starting to expand to support arrays from other vendors."

So far, Hitachi, HP, IBM and Sun are shipping either array-based storage virtualization or Fibre Channel switches that pair with server appliances to add intelligent services to the storage fabric. Hitachi has an intelligent controller in its TagmaStore array that virtualizes the storage resources attached to it. IBM and EMC manufacture server-based appliances that attach to Fibre Channel, director-level switches from Brocade, Cisco and McData to virtualize storage resources.

All these companies say they support heterogeneous storage virtualization. Hitachi's TagmaStore, for instance, can connect to IBM Enterprise Storage Server and EMC's Symmetrix and Clariion products.

Dave Hill, senior analyst for the Mesabi Group, points to another stumbling block on the way to heterogeneous virtualization: Customers and vendors want to protect existing assets and investments.

"I'm not sure that vendors are as anxious as they say to implement data migration or replication services on a switch or other virtualization appliance," Hill says. "Customers want to be able to use the software — EMC's [Synchronous Remote Data Facility] — they already have. They are not going to rip and replace to implement a virtualization appliance that

What's out there

All major storage vendors offer heterogeneous virtualization.

Product	Implemented as	Status
EMC Invista	Fibre Channel switch and appliance-based.	In limited beta test
Hitachi Data Systems TagmaStore*	Array-based	Shipping
IBM SAN Volume Controller	Fibre-Channel switch and appliance-based	Shipping
Sun StorEdge 6920 System	Array-based	Shipping

*HP and Sun both rebrand the TagmaStore

doesn't give them any additional capability."

Prigmore agrees. "The problem is, customers have software investments in their branded arrays, and they are not going to get rid of them to deploy a heterogeneous virtualization solution," he says.

One such user is John Blackman, a technology strategist and storage architect for a Fortune 500 company that he cannot name. "Why do I need [EMC's] Invista for migration when I can just migrate that data to a new array and shut down the old one?" he asks. "A lot of environments are still fairly siloed, and there is no real trust that vendors can actually cooperate, so everyone creates niche solutions that work with only their gear," he says.

A customer who does see the bright side of virtualization — albeit homogeneous — is Michael Amble, director of information services for Fidelity National Financial in Jacksonville, Fla. Amble has virtualized about 600TB of data on Hitachi TagmaStore and Thunder 9585V systems to help him implement an information life-cycle management (ILM) strategy. "The business is such that the allocation of storage space is really important to us," he says. "We have a system that has to be

sized for that business. Having the ability to move disk storage between tiers is terribly important for us."

Because about 80% of Amble's business takes place in the last five days of the month, historical title data is migrated from less expensive and slower Thunder 9585V arrays to the more expensive and quickly accessed TagmaStore when it is needed to process new title work.

Amble says his company continues to acquire other businesses, but it's not considering virtualizing

the storage gear gained in those acquisitions. "We have moved legacy equipment into different environments but not into our core TagmaStore network," he says. "We are sensitive to mixing and matching equipment, because we don't want to jeopardize our secure [Hitachi] environment."

There are also customers for whom even the promise of homogeneous virtualization within a single vendor's products is not sufficient. "We are actively looking at Incipient and EMC Invista as future virtualization candidates, but they are still fairly young solutions in the market, and the feature set they bring doesn't meet our entire need yet," says Michael Passe, storage architect for Caregroup Healthcare Systems in Boston.

Passe has a homogeneous-storage environment consisting of tiered EMC Symmetrix, Clariion and Center storage.

"Basically, we would like virtualization to enable EMC Symmetrix DMX-to-Clariion real-time replication, which EMC does not support today with such products as MirrorView or SRDF," Passe says. "At some point, virtualization will enable us to move forward to the next part of the ILM vision that EMC has laid out." ■

► Read how experts think the merger will play out for corporate customers. Page 19

you, inc.

poweredbycisco.

A small engineering firm in Iowa sends a message of "Eureka!"
to colleagues in Germany and Japan after cracking a long-elusive formula.

Now, top minds around the globe can work together, without being together, to share ideas, solve problems,
and overcome the impossible. Introducing You, Inc., part of a new way of doing business created to help
you make the most of your network (and business). At its core is Cisco Smart Business Communications,
a unique set of products and services made specifically for small to medium-sized businesses
like yours. To learn more, or to find a certified partner or a service provider
to help manage your network, visit cisco.com/youinc



CISCO SYSTEMS

innovation. powered by



Microsoft exec warns of rootkits

BY ELLEN MESSMER

ORLANDO — If your system gets infiltrated by a rootkit, you might as well just “waste the system entirely,” a Microsoft official told fellow security professionals last week at the annual InfoSec Conference here.

Microsoft's Mike Danseglio, program manager in the company's security solutions group, was among a host of security experts from big-name companies who swapped advice about protecting networks with 1,700 showgoers.

According to Danseglio, the hacker rootkit is “probably the nastiest piece of malware you'll get,” because it is designed to hide unwanted files — or any sign a computer has been compromised — stealthily.

Microsoft dedicates four staffers to analyze rootkit samples found in customer computers or on the Internet. In his presentation, Danseglio offered a list of the most-wanted rootkits (see graphic), adding that 90% of what Microsoft finds relates to Hacker Defender, a rootkit from the Czech Republic-based programmer who calls himself Holy Father. The programmer charges several hundred dollars to make Gold versions of his basic rootkit.

Writing rootkits isn't a crime, but using them to hide code in a com-

Microsoft's most-wanted list

Rootkits that hide in Windows:

- Hacker Defender
- FU
- HE4Hook
- Vanquish
- AFX
- NT Rootkit

Tools that can detect rootkits:

- PatchFinder2 and Klister/Flister, proof-of-concept tools from Polish researcher Joanna Rutkoska
- RootkitRevealer from Sysinternals
- Blacklight from F-Secure
- Microsoft File Checksum Integrity Environment
- Bootable Antivirus & Recovery Tools from Alwil Software
- Knoppix Security Tools Distribution (open source)

puter that's been hacked by other means is, Danseglio said. Holy Father last month indicated he's retiring from his Web site business, leading some to speculate that he's been hired for some purpose somewhere.

According to Danseglio, root-

kits have been embedded in many networks, with college campuses especially hard-hit. The University of Washington has become notorious for its students using rootkits to hide pornography and music on the university's servers, he said.

Danseglio offered a list of tools, including a few from Microsoft, that can detect rootkits. But he said there are no simple ways to address the menace. “There are no rootkit-resistant operating systems,” Danseglio said.

Lessons shared

Kerry Anderson, a Fidelity Investment Brokerage vice president in the information security group, spoke on the topic of setting up a computer forensics program to tackle crime, including child pornography, terrorism and financial fraud.

A company's first priority should be establishing a policy and internal training for auditing and investigating suspected computer crime, coordinating among the legal, human resources and IT departments, she said.

She advised extending that policy to include working with outsourcing providers, vendors and business partners to ascertain their computer-investigation procedures and get the right to audit

and monitor their computers if necessary. “Our contracts today are requiring the right to do risk assessment and visitation audits,” she pointed out.

The insider threat is a top concern at State Street, which manages more than \$10 trillion in assets. State Street Senior Technology Officer Doug Sweetman said securities laws require the firm to conduct background checks on employees and prospective employees.

But these days, that might go beyond a criminal-history check and include scouring the Web to find blogs an applicant has written or evidence of a gambling habit or visiting hacker sites — all of which might raise a red flag. “I don't feel any restrictions going after your blog or pulling all these data together,” he said.

One headache at State Street is the freeware that employees download and the company wants to remove as a potential security risk. Google Desktop 3.0 search software is among the programs State Street watches out for. “It allows for file-sharing and takes the file up to the Google complex,” Sweetman said.

“You've got to think about where that file is when Google indexes content,” he said. ■

2600

continued from page 12

ually as they need to be replaced.”

As with Rubbermaid, prestaging and testing gear is essential, Parsons says. When making such changes to a WAN, administrators must prepare for network downtime and potential issues with new technology, he says.

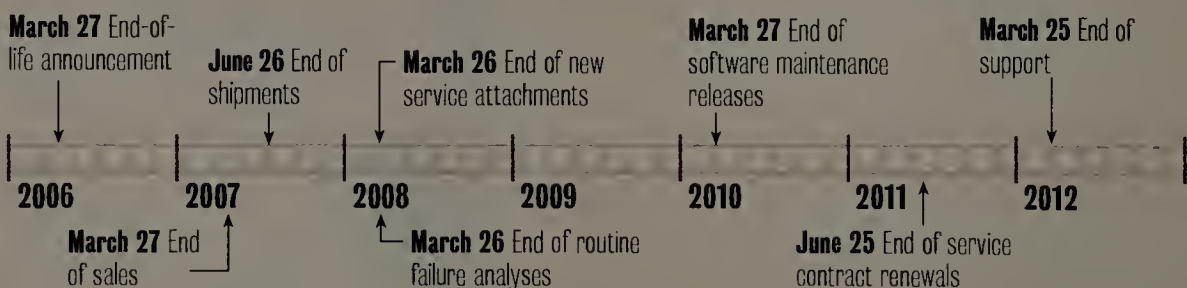
“There may be IOS versions in the newer equipment that may not support features you had before, so that has to be examined and figured out beforehand,” he says.

Cisco watchers say the move from the 2600 series to the ISR 2800 is another step in the vendor's goal to make routers a valuable and strategic technology for business, instead of a commodity product.

“The 2600 was a workhorse for Cisco, but it's time for a refresh,” says Frank Dzubeck, president of Communications Network Architects. “Part of the issue is that the 2600 was never really a platform,” he says. “You sold it, it was installed out in the field, and you never real-

Cisco's 2600 series phaseout schedule

Key dates for users of Cisco 2600 routers, as Cisco ends the product's sale and support.



ly touched it again; it's hard for Cisco to sell into that.”

The ISR 2800 series offers more expansion options — such as modules that add VoIP, built-in IP PBX and voice mail, caching, firewalls, and intrusion-detection and intrusion-prevention capabilities — all without taxing processor and memory power for core WAN routing, Dzubeck says.

Cisco says its ISR line, introduced in 2004, has reached more than \$1 billion in sales, and the vendor has shipped more than 500,000 ISRs —

the fastest single product run rate in the company's history.

While this has helped Cisco keep its more than 70% market share in enterprise WAN routing, the company also has seen a ramp-up in competition from Juniper with the release of its SSG — an integrated Juniper WAN router and NetScreen firewall. Nortel's acquisition of enterprise router maker Tasman Networks last year and Alcatel's recent launch of its Omni-Access WAN router series also are attempts to dig into Cisco's base. ■

NETWORKWORLD

EDITORIAL DIRECTOR: JOHN GALLANT
EDITOR IN CHIEF: JOHN DIX

NEWS

EXECUTIVE EDITOR, NEWS: BOB BROWN
NEWS EDITOR: MICHAEL COONEY
NEWS EDITOR: PAUL MCNAMARA

NET INFRASTRUCTURE

SENIOR EDITOR: JOHN COX (978) 834-0554
SENIOR EDITOR: TIM GREENE
SENIOR EDITOR: PHIL HOCHMUTH
SENIOR EDITOR: ELLEN MESSMER (941) 792-1061

ENTERPRISE COMPUTING

SENIOR EDITOR: JOHN FONTANA (303) 377-9057
SENIOR EDITOR: DENI CONNOR (512) 345-3850
SENIOR EDITOR: JENNIFER MEARS (520) 818-2928

APPLICATION SERVICES

SENIOR EDITOR: CAROLYN DUFFY MARSAN, (317) 566-0845
SENIOR EDITOR: ANN BEDNARZ (612) 926-0170
SENIOR EDITOR: DENISE DUBIE
SENIOR EDITOR: CARA GARRETSON (240) 246-0098

SERVICE PROVIDERS

SENIOR EDITOR: DENISE PAPPALARDO, (703) 768-7573
MANAGING EDITOR: JIM DUFFY (716) 655-0103

NET.WORKER

MANAGING EDITOR: JOHN DIX

COPY DESK/LAYOUT

MANAGING EDITOR: RYAN FRANCIS
SENIOR COPY EDITOR: JOHN DOOLEY
COPY EDITOR: TAMMY O'KEEFE
COPY EDITOR: BOB SPRAGUE
COPY EDITOR: CAROL ZARROW

ART

DESIGN DIRECTOR: TOM NORTON
ART DIRECTOR: BRIAN GAIDRY
SENIOR DESIGNER: STEPHEN SAUER
ASSOCIATE DESIGNER: ERIC ANDERSON

FEATURES

FEATURES EDITOR: NEAL WEINBERG
SENIOR MANAGING EDITOR, FEATURES: AMY SCHURR
OPINIONS PAGE EDITOR: SUSAN COLLINS

CLEAR CHOICE TESTS

EXECUTIVE EDITOR, TESTING: CHRISTINE BURNS, (717) 243-3686
SENIOR EDITOR, PRODUCT TESTING: KEITH SHAW, (508) 490-6527
LAB ALLIANCE PARTNERS: JOEL SNYDER, Opus One; JOHN BASS, Centennial Networking Labs; BARRY NANCE, independent consultant; THOMAS POWELL, PINT; Miercom; THOMAS HENDERSON, ExtremeLabs; TRAVIS BERKLEY, University of Kansas; DAVID NEWMAN, Network Test; CHRISTINE PEREY, Perey Research & Consulting; JEFFREY FRITZ, University of California, San Francisco; JAMES GASKIN, Gaskin Computing Services; MANDY ANDRESS, ArcSec; RODNEY THAYER, Canola & Jones; SAM STOVER, independent consultant
CONTRIBUTING EDITORS: DANIEL BRIERE, MARK GIBBS, JAMES KOBIELUS, MARK MILLER

NETWORKWORLD.COM

EXECUTIVE EDITOR, ONLINE: ADAM GAFFIN
MANAGING EDITOR: MELISSA SHAW
SITE EDITOR: JEFF CARUSO, (631) 584-5829
SENIOR ONLINE NEWS EDITOR: LINDA LEUNG, (510) 768-2808
MULTIMEDIA EDITOR: JASON MESERVE
ASSOCIATE ONLINE NEWS EDITOR: SHERYL HODGE
SENIOR ONLINE GRAPHIC DESIGNER: ZACH SULLIVAN

SIGNATURE SERIES

EDITOR: BETH SCHULTZ, (773) 283-0213
EXECUTIVE EDITOR: JULIE BORT (970) 482-6454
COPY EDITOR: TAMMY O'KEEFE

EDITORIAL OPERATIONS MANAGER: CHERYL CRIVELLO
OFFICE MANAGER, EDITORIAL: GLENNA FASOLD
EDITORIAL OFFICE ADMINISTRATOR: PAT JOSEFEK
MAIN PHONE: (508) 460-3333
E-MAIL: first_name_last_name@nww.com

Eliminate multiple software license fees. Legally.

Why pay again for something you already own? The Pillar Axiom™ storage system lets you add performance and over 300 TB of capacity per system without requiring you to pay for additional software license fees. It combines both SAN and NAS environments and empowers you to manage multiple tiers of data through a single, easy-to-use interface. And it delivers top-tier performance that can improve your bottom line, often for less than what many companies pay just to operate and maintain their storage systems.

To hear about our new approach to managing data storage, you owe it to yourself to schedule a half-hour briefing.

Call **1-877-252-3706** or visit **www.pillardata.com/legally**

Learn the truth about networked storage.

© 2006 Pillar Data Systems Inc. All rights reserved. Pillar Data Systems and the Pillar logo are all trademarks of Pillar Data Systems

The Paradox:

Multiple layers of security make life harder for threats.
Multiple layers of security make life harder for you.

The Answer: Proven security.

Anti-Spam & Anti-Spyware

Network Access Control

Intrusion Prevention

Desktop Firewall

E-Mail Security

Anti-Virus

Security threats are mounting in number—and they're evolving in complexity. Your security must evolve as well. This used to mean managing multiple products without integration, which created operational challenges, risk, and increasing costs. Not any more. With McAfee® Total Protection for Enterprise, you'll have comprehensive, integrated protection. You'll control everything—from anti-virus to network access control to anti-spyware—all from a single management console. McAfee Total Protection solutions are engineered to provide maximum manageability and deliver total endpoint security without compromise. McAfee, the dedicated security company that blocked or contained 100% of the top attacks in 2005, delivers proven results backed by more than 15 years of experience. Secure your business advantage. Learn more at www.mcafee.com/total

McAfee
Proven Security™

NET INFRASTRUCTURE

■ SECURITY ■ SWITCHING ■ ROUTING ■ VPNS ■ BANDWIDTH MANAGEMENT ■ VOIP ■ WIRELESS LANS

Short Takes

■ **HP** plans to release business notebook PCs later this year with integrated global broadband wireless connectivity, the company said last week. HP will team with Cingular Wireless to add integrated Universal Mobile Telecommunications System/-High Speed Downlink Packet Access technology to certain notebooks. The move will simplify wireless networking for overseas travelers and help HP better compete against products such as Dell's Latitude notebook. UMTS is the network standard that uses Wideband Code Division Multiple Access technology to boost capacity and data speed compared with 2G mobile networks. HSDPA is a mobile broadband standard capable of reaching downlink speeds of 14.4Mbps.

■ **Code Green Networks** debuted last week with a gateway appliance for monitoring unauthorized outbound transmissions of sensitive content. The appliance starts at \$50,000. It monitors, but doesn't block, outbound content sent via e-mail, FTP, Web mail or other protocols. Code Green, funded with \$30 million in venture capital from Day Partners, Sierra Ventures and others, joins a growing crowd of competitors in what's sometimes called the extrusion-prevention market. These include Fidelis, PortAuthority, Reconnex, Vericept and Vontu.

■ **McAfee** has purchased Web site rating company **SiteAdvisor**, the two companies announced last week. Founded by a group of Massachusetts Institute of Technology engineers in April 2005, SiteAdvisor develops automated software that tests Web sites to see whether they install spyware or computer viruses. Last month the company released a free browser toolbar designed to warn users when they visit Web sites that seem risky. McAfee hopes to extend the SiteAdvisor technology to create a new line of "safe search" products, the first of which is expected in 2006.

All eyes on Alcatel-Lucent merger

BY PHIL HOCHMUTH

With the mega-merger of Lucent and Alcatel in the books, corporate users of Alcatel voice and data gear say the deal could be a boon for the French vendor's market presence in the United States.

In addition to merging a plethora of carrier access, edge, backbone and optical product lines, the Alcatel-Lucent merger creates an interesting package of IP voice, switching, routing and security products. But with Lucent mostly out of the enterprise business since 2000, and Alcatel's scant market share, some observers question whether the merger will be just a blip on the screen for large IT buyers.

Lucent and Alcatel agreed last week to a \$13.4 billion merger, in which Lucent CEO Patricia Russo would become the head of the joined company. But the deal — called a merger of equals — is essentially a buyout of Lucent by Alcatel, which has almost twice the market value of its U.S. rival.

"The Lucent footprint could help Alcatel a little in the U.S., but it's not like Lucent is that well known to U.S. enterprises either," says Zeus Kerravala, an analyst with The

Corporate offerings

A combined Alcatel-Lucent would have an almost complete package of enterprise voice, data and security gear.

Voice

Alcatel OmniPCX Enterprise: Hybrid IP/TDM PBX with Session Initiation Protocol support.

Data

Alcatel OmniSwitch: Stackable and chassis-based Layer 2 to 4 LAN switches, scaling up to 10G Ethernet.

Alcatel OmniAccess: WAN routers with T-1/T-3

Security

Lucent VPN Firewall Brick: Layer 2 firewall/VPN/QoS appliance.

Lucent Security Management Server: VPN and QoS provisioning platform.

Lucent IPSec Client: Remote access software.

Yankee Group. "The Lucent brand has been gone from the enterprise for so long, it might not give Alcatel much of a boost." If a company is going to go through a

process and end up picking Alcatel, Kerravala says, "it's going to be because the [buyer] has done their due diligence and found some feature or benefit from Alcatel," and not because of name recognition or marketing.

Price and performance are the reasons users would install Alcatel gear in the United States.

"I'm just waiting with interest to see what's going to happen" to Alcatel's enterprise business after the merger, says David Happala, network technician for the Crosby Independent School District, which is near Houston.

Three years ago, the school district standardized on Alcatel OmniSwitch Layer 3 Gigabit Ethernet backbone and 10/100/1000Mbps wiring closet switches, when Happala was looking to build a district-wide Gigabit Ethernet WAN with fiber provided by the local cable TV provider.

"I liked what Alcatel was doing at the time with Layer 3 and Layer 4 switching," Happala says. "Cisco was doing it too, but it was too expensive. When we put our requirements out for bid, Alcatel came in at

See Merger, page 22

Symantec tunes up its IM monitoring

BY TIM GREENE

Symantec is making it easier to monitor and control real-time applications being used on corporate networks.

With Release 8.0 of its IM Manager software, the company is adding tools to apply security policies to VoIP and videoconferencing and expanding its ability to do the same to instant messaging and text messaging, the company says.

The benefits of the new capabilities are twofold, according to Eric Ogren, an analyst with Enterprise Strategy Group. First, it gives businesses a way to discover just how much peer-to-peer traffic is on their networks, information they might not be able to get now. And IM Manager logs traffic, creating records that can be used to meet regulatory restrictions on how sensitive data is handled.

"You can't prevent use of Skype and Yahoo Instant Messenger, but you can control the corporate risk," Ogren says.

"And you might not want to block them. You don't have to worry about software installation and you get business benefits for free."

For example, network security executives can set a policy within IM Manager that enables application sharing between users via Microsoft Office Communicator and logs all the session data, including who was invited to the session, Symantec says. Similarly, the new software allows users to use e-mail and IM aspects of Google Talk, but not the VoIP part of Google Talk.

"This feature allows IT, not to block these employees from what they're doing but keep track of it," Ogren says.

It's common to keep track of sent e-mails and attachments, but not IM messages and attachments, says Chris Liebert, a senior network security analyst with The Yankee Group. "This gives you the benefit of auditing what is sent," she says.

The 8.0 IM Manager software integrates its archived IM transcripts with another Symantec product, Enterprise Vault, which archives e-mails. The company says this lets customers store and search these archives from a single console rather than opening IM Manager to look for archives and opening Enterprise Vault to search through stored e-mails.

The new software also can block new IM viruses based on behavior it detects on a network. So if a virus with no known signature starts sending messages with a consistent pattern to everyone on a user's buddy list, the software could block that traffic as a likely virus by blocking the machine from sending IMs. A person would have to investigate to see whether the behavior represented an actual virus.

Symantec competes in these areas with CipherTrust and Trend Micro.

With the new release, the company is

See Symantec, page 22

A Global Hotel Company Analyzing 1.4 Million Records a Day.
Running On Microsoft SQL Server 2005.



How does Hilton forecast demand for its 370,000 rooms and its catering services? They import data from six systems into one data warehouse requiring 7 million rows, and running on SQL Server™ 2005 with 99.98% uptime.* See how at microsoft.com/bigdata

Microsoft
SQL Server 2005



*Results for availability and uptime are based on use with Windows Server™ 2003 Enterprise Edition. Availability is dependent on many factors, including hardware and software technologies, mission-critical operation, processes, and professional services. © 2006 Microsoft Corporation. All rights reserved. Microsoft, Windows Server, and "Your potential. Our passion." are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.



SECURITY INSIDER
Mike Rothman

Xenophobia's bad for security business

The United States made the approval process so miserable for both parties that they threw in the towel. Evidently the FBI and the Department of Defense expressed concern that having Check Point, an Israeli company, control Sourcefire's intrusion-prevention software puts their networks at risk.

Riddle me this, Batman. There is a lot more Check Point than Sourcefire software used in U.S. government networks. Also, a decent part of Sourcefire's technology is open source (the Snort intrusion-detection system engine), so it's available to anyone with an Internet connection. So the fear is what? That's right, irrational.

It will be interesting to see how the political tides turn relative to the Alcatel-Lucent deal. Given the stink put up about Check Point-Sourcefire, a foreign acquisition

of Lucent — which provides a decent part of the voice backbone of the United States and also runs Bell Labs — would seem about as likely as Vice President Dick Cheney going on another hunting trip.

The paranoia does not stop at the infrastructure. A contract Lenovo (the former IBM PC company acquired by a Chinese firm) won to supply PCs to the State Department is being investigated because of fears the Chinese will install a back door in those machines. Never mind that the PC would be built in North Carolina. Score one more for xenophobia.

It's not restricted to the United States. U.K. regulatory entities now have an issue with U.S. company SafeNet buying nCipher, a U.K. encryption vendor.

I was under the impression that the United Kingdom and the

United States are allies, but I guess all bets are off relative to source code.

This is poised to be a big problem for the networking economy. Putting the kibosh on cross-border mergers restricts technology companies from acquiring the global reach and broad product lines that meet the needs of enterprise customers. Play the situation out a bit and non-U.S. technology companies are forced to invest their money elsewhere, which provides fewer exits for innovative start-ups. Venture capitalists have less money to invest in these companies, so innovation slows. And so the cycle goes.

Foreign technology companies doing business in the United States should be worried. Clearly they can't acquire U.S.-based companies to gain a foothold in the United States. They'll also

have problems selling products to the U.S. government (just ask Lenovo). How long before the tables turn and it becomes a lot harder for U.S. technology companies to do business abroad?

What was poised to be a global economy looks very regional now. I try to stay away from political opinion, but I believe the current administration has a pretty serious choice to make. It is not acting like a friend of business, and the tech ecosystem encompasses a lot of voters. If this xenophobia continues, it certainly doesn't bode well for the incumbents in an election year.

Rothman is president and principal analyst of Security Incite, an analyst firm focusing on information security. Read his blog at <http://feeds.feedburner.com/securityinciterants> or send e-mail to mike.rothman@securityincite.com.

Symantec

continued from page 19

changing the pricing of IM Manager to \$40 per seat, including the IM Manager server. It previously cost \$25 per seat with a \$7,500 fee for server software.

In other Symantec news, the company shuffled its executive ranks last week to simplify operations. The changes include the departure of three senior executives and the appointment of a new CTO, Ajei Gopal.

The changes, which occurred last month but had not been publicly disclosed, are part of the company's ongoing efforts to manage its 2005 acquisition of storage software vendor Veritas Software. Over the past few months a number of senior Symantec executives have departed, including Bloom, formerly CEO of Veritas, and former

CFO Greg Myers.

As part of the reorganization, Symantec now has halved the number of business units it operates and streamlined sales operations to improve performance, the company says. The most high-profile change is the company's selection of Gopal to replace previous CTO Mark Bregman, who has moved to a technical sales role within the company's Worldwide Sales and Services organization. Gopal now finds himself in a familiar position. He had been CTO before losing his job to Bregman following the Veritas purchase. Before the acquisition, Bregman had been Veritas' CTO.

The senior executives who departed in the past month include Steve Leonard, senior vice president for the Asia Pacific and Japan region; Lindsey Armstrong, the company's senior vice president for Europe, the Middle East and Africa; and Don Frischmann, who served as senior vice president of communications and brand management.

Leonard has been replaced by Bill Robbins, and Armstrong's job is now being handled by John Brigden. Frischmann's communications responsibilities have been assigned to Chief Marketing Officer Janice Chaffin, Symantec says.

With the new corporate structure, Symantec has reduced the number of business units it operates from six to three: the Consumer Products and Solutions group, headed by Enrique Salem; the Enterprise Security and Data Management, headed by Jeremy

Burton; and the Data Center Management group, run by Kris Hagerman.

The changes will not affect the branding of Symantec's products, but some customers will notice a difference on the sales side. As of April 1, the company's

sales structure has been streamlined so that customers will no longer deal with separate representatives for the company's Veritas and Symantec products.

The IDG News Service contributed to this report

Merger

continued from page 19

one-third of the cost of the Cisco bid."

Lucent for years was a well-known corporate brand, with its Definity PBX and Cajun line of LAN switches, but the vendor spun off all product lines with the divestiture of Avaya in 2000. (Avaya has since stopped selling data products).

In a Webcast news conference in Paris last week, Alcatel Chairman Serge Tchuruk and Lucent CEO Russo only briefly mentioned enterprise customers in reference to the two companies' work on developing IMS technology, which defines how IP networks handle voice calls and data sessions, and next-generation all-IP networks.

Their remarks were aimed mostly at network operator customers, especially big companies requiring global support.

Alcatel spokesman Mark Burnworth said it was still too early to delve into any details, such as which product lines could be expanded or dropped.

Whether or not a merged Alcatel-Lucent divests its enterprise gear, some users think the Lucent brand still holds weight.

"I think it will be beneficial," having Lucent and Alcatel merged, says Michael Robinson, director of communications for Jackson State University in Jackson, Miss. The university uses Alcatel Omni-

Switch LAN switches and the OmniPCX Enterprise IP PBX phone system, which provides analog phone service to dormitories, and a mix of digital and IP voice to staff and faculty office.

"The main thing it will give Alcatel is more name recognition here in the U.S.," Robinson says of the Alcatel-Lucent merger. "Alcatel has very good products, but not many people out there have purchased Alcatel equipment or even know where to get it." In Mississippi, only one telecom/datacom integrator offers Alcatel products, Robinson says.

Also at issue with the Alcatel-Lucent merger are the vendors' relationships with the French and U.S. governments, respectively. Both vendors sell gear to their federal governments and support it, and a merged company could raise issues with the governments, analysts say.

"[Lucent] said they would create a proxy board in charge of sorting out government business by degree of sensitivity," says Stéphane Téral, an analyst with Infonetics Research.

Alcatel also has defense-related business with the French government that is being divested of and merged into EADS, the French airplane and IT outsourcing giant.

Material from the IDG News Service was used in this report.

www.com

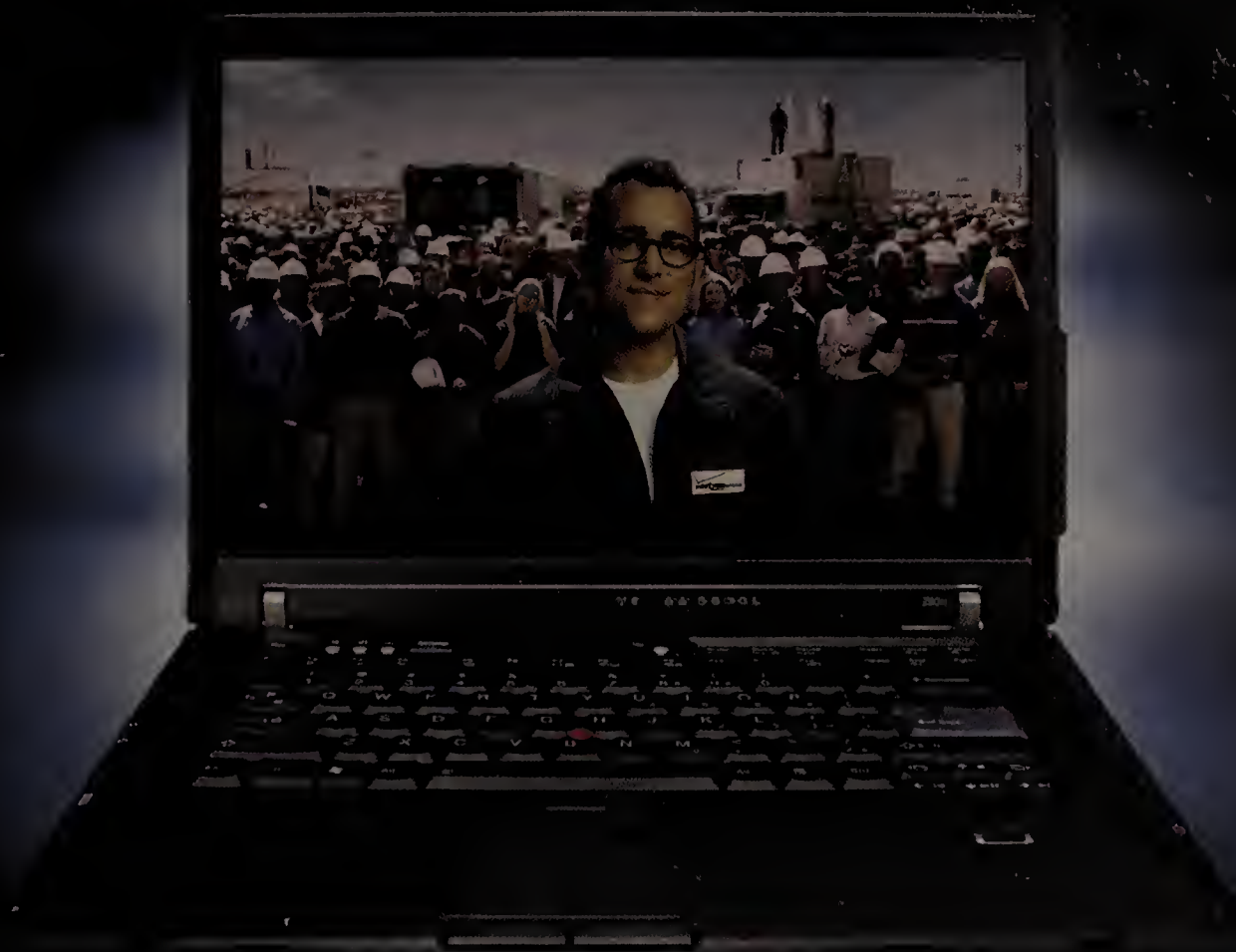
Reader recognition

Want notice for your exceptional IT project? Enter our second-annual Enterprise All-Star Award competition. Nominations will be accepted through May 10.

www.networkworld.com/2346



IT'S THE NETWORKSM THAT'S BUILT IN TO THE LATEST NOTEBOOKS.



UNLIMITED BroadbandAccess

for Internet browsing, email and intranet access
now at a great price of

\$59⁹⁹ monthly access

Offer valid on 2-year Customer Agreement
with qualifying voice plan

BroadbandAccess built in. Only from Verizon Wireless.

- For the first time ever, access to Verizon Wireless' BroadbandAccess service is built in to the most innovative notebooks from Lenovo ThinkPad and HP. So you can work wirelessly without a PC card or the hassle of Wi-Fi hotspots.
- With BroadbandAccess built in, there's never been an easier or more convenient way to work on the nation's largest high-speed wireless broadband network.
- Already have a notebook but are still interested in the power of BroadbandAccess? You can get a BroadbandAccess-capable PC card that slides directly into most notebooks.

ThinkPad



verizonwireless.com/notebooks

Our surcharges (incl. 2.41% Federal Universal Service [varies quarterly], 5c Regulatory & 40c Administrative charge/line/mo., & others by area) are not taxes (details: 1-888-684-1888); gov't taxes and our surcharges could add 6%-35% to your bill. Activation fee: \$35/line. IMPORTANT CONSUMER INFORMATION: Subject to Customer Agreement, Calling Plan & Credit approval. \$175 termination fee, other charges & restrictions. Offers, coverage & service not available everywhere. BroadbandAccess is available in 181 major metro areas covering over 148 million people. Wireless service not included with notebook. Access limited to coverage area of Verizon Wireless. Check with Verizon Wireless for availability and coverage in your area. Coverage limitations & maps at www.verizonwireless.com. Limited time offer.



The Xerox Phaser 8500® network color printer delivers heavyweight specs at a featherweight price. Which means it can take on anybody. **Xerox Color.** It makes business sense.

To make the tough Xerox Phaser 8500 even tougher to resist, we reduced it to \$599 after a \$300 rebate. It still delivers up to 24 color pages a minute and an industry-leading first-page-out time that delivers stunning 600 dpi color in just 6 seconds. It has Driver Color Controls to match output color to the color on your computer screen.



And talk about endurance! With one of the largest paper capacities in its class, the Phaser 8500 just keeps going. It's easy to install and maintain. Solid Ink technology makes it environmentally green. Naturally, it's from a winning line of color printers and multifunction systems. To learn more, contact us. We're sure our little champ will knock you out.

XEROX.

*For rebate details visit the website below.

call: 888-247-5107

click: xerox.com/office/1989

contact: Your local reseller

Technology

Document Management

Consulting Services

Limited time offer. Offer is valid for end users who purchase any new Xerox Phaser 8500N or Phaser 8500DN between 4/1/06 and 5/31/06. Xerox must receive completed refund request and copy of the dated invoice by 6/30/06. Cannot be combined with any other Xerox incentive. Xerox will mail the eligible rebate check directly to end user. Allow 6 to 8 weeks for delivery. Open to U.S. customers with a valid U.S. mailing address. Xerox resellers, agents, dealers, distributors and retailers are not eligible. Not responsible for late, lost or postage-due mail. Void where prohibited. Applicable tax, if any, is the sole responsibility of end user.
© 2006 XEROX CORPORATION. All rights reserved. XEROX®, Phaser® and Xerox Color. It makes business sense are trademarks of XEROX CORPORATION in the United States and/or other countries.

ENTERPRISE COMPUTING

■ WINDOWS ■ LINUX ■ UNIX ■ SERVERS ■ STORAGE ■ GRID/UTILITY ■ MOBILE COMPUTING

Short Takes

■ **Apple Computer** has released software that lets Mac users run Windows XP on Intel-based Macintosh computers. Called Boot Camp, the software creates a hard-drive partition for Windows XP and lets users choose between the two operating systems at start-up time. It's available as a free beta that works for a limited time, and will be included as a feature of the next major Mac OS release, code-named Leopard, Apple says. The move comes a few months after Apple introduced its first computers based on Intel's x86-type processors. The company has expressed little enthusiasm in the past for running Windows on its Macs, and still doesn't sound entirely happy about it. "Apple has no desire or plan to sell or support Windows, but many customers have expressed their interest to run Windows on Apple's superior hardware, now that we use Intel processors," says Phil Schiller, Apple's senior vice president of worldwide product marketing.

■ **Sun** said last week it has upgraded its business software for storage with new reporting enhancements. Sun's StorageTek Business Analytics software is based on technology gained last year from the company's \$4.1 billion acquisition of Storage Technology. StorageTek had previously acquired the software, formerly called Storability Global Storage Manager, from its purchase of Storability Software in 2004. Sun is in the process of rebranding its storage products under the StorageTek name, as well as integrating the staff and technologies it gained through the acquisition. Version 5.0 of StorageTek Business Analytics adds new network-attached storage reporting capabilities to notify administrators when quotas are being reached, as well as new reporting functionality to identify and repair orphan storage. The latest version also adds support for the Red Hat Enterprise Linux and Sun Solaris 10 operating systems, QLogic switches and IBM and ADIC tape libraries.

Nokia eyes corporate mobility

BY JOHN COX

Nokia took a small step toward a big goal last week.

That step is a new version of its device-management software, which lets customers control and provision mobile devices, such as smart-phones and PDAs.

Nokia's goal is to be the linchpin in corporate mobility by offering a variety of products, from handsets to server software that together give mobile workers secure access to enterprise applications.

Achieving that goal is the burden of the Enterprise Solutions division, created in 2004, under former HP executive Mary McDowell. In 2005 the division's net sales, including enterprise-class smart-phones, network firewall and VPN products, and now mobile e-mail and device management software, amounted to \$1.05 billion, less than 3% of Nokia's total sales. Worse, Nokia executives cited the division's losses as one drag on 2005 profits. Nokia officials say the division is scheduled to be profitable in 2007.

Key acquisition

Nokia confirmed the importance of the new business unit in 2005, however, when the board approved a big step: the \$430 million acquisition, completed two months ago, of Intellisync, a software vendor offering data-synchronization middleware with an application for push e-mail and a suite of device-management applications.

Targeting the enterprise

With global demand for data services expected to rise 20% to \$22 billion this year compared to 2005, Nokia has been building up its enterprise offerings. The company has:

- Introduced E Series handsets designed for enterprise users.
- Spent \$430 million to buy Intellisync for its mobile e-mail, middleware and device management software products.
- Via partnerships with Avaya and Cisco, enabled its cellular handsets to work with corporate IP PBXs.
- Extended device management to other platforms besides its Symbian-powered handsets.

"This acquisition really expands their role into mobile e-mail, groupware and [personal information management]," says Cliff Raskind, director of wireless enterprise strategies for Strategy Analytics in Boston. "And it gives them instant presence with [Code Division Multiple Access] carriers in the United States, where Nokia has had almost no presence."

The Intellisync software will provide the underpinnings for Nokia Business Center, a 2005 package of hardware and software for push e-mail and for mobilizing a range of business applications that was initially targeted as an inexpensive offering for small-to-midsize companies. The offering was a direct challenge to Microsoft, Research in Motion and Sybase, with its Extended Systems acquisition.

The software announced last week intro-

duces the Open Management Alliance Device Management standard into the Intellisync Device Management suite. The OMA-DM is a set of industry protocols and mechanisms for managing mobile- and wireless-connected devices. The release also will give administrators new controls over what file types and sizes can be downloaded to handhelds.

This kind of centralized administration is essential to make mobile devices a true extension of the enterprise, says Olivier Cognet, the division's executive vice president of business development.

"The driver for Nokia is this: If we just want to sell some more phones to the enterprise, that won't get us very far," he says. "We want to enable all the enterprise applications, not just e-mail, that these employees need."

See Nokia, page 27

EMC software archives e-mail and more

BY SHELLEY SOLHEIM, IDG NEWS SERVICE

EMC last week rolled out software for archiving e-mail and reporting data from enterprise applications.

The two offerings are Documentum Archive Services for E-mail, which collects and stores incoming and outgoing e-mail, and Documentum Archive Services for Reports, which captures reports from ERP systems, invoices, Web services and other content.

EMC already offered a tool that archives e-mail, called E-mailXtender, but the company says the new tool is designed to archive assorted content types.

The software is based on enterprise content-management technology that EMC gained through its \$1.7 billion acquisition

of Documentum, and is part of the storage giant's strategy to provide a unified approach for collecting, storing and accessing data, regardless of content type.

EMC last year released archiving software for SAP software and plans to extend archiving to many other forms of content, including image, video and Web files.

The company says that by adopting a unified archiving approach, businesses can expedite data recovery for compliance and litigation, reduce the amount of redundant data that can occur when content is stored in separate silos, ease management by setting and enforcing policies across multiple types of data in one central place, and better mine data.

EMC says many of the capabilities of the

Documentum content-management platform, such as version control and unstructured-data searching, were a good fit for archiving software.

The software will support other storage vendors' products, EMC says.

"Their biggest challenge will be trying to convince enterprises that there's a one-stop shop for archiving all their data," says Brian Babineau, with the Enterprise Strategy Group in Palo Alto.

EMC will have to overcome organizational and political barriers around archiving data, as different groups within companies often have different methods for archiving data and may have concerns about storing data in a central place with other groups, Babineau says. ■



FORT KNOX

> MADE SIMPLE

Is there a simple way to secure your network so that only your employees can access it?
Yes. Choose Nortel. We provide safe, secure, and reliable data and voice communications
all over the world, including support for 100 million remote workers every day.

> BUSINESS MADE **SIMPLE**

nortel.com

NORTEL

Business Made Simple, Nortel, the Nortel logo, and the globe mark are trademarks of Nortel Networks.

Microsoft announces virtualization freebie

BY JOHN FONTANA

Microsoft said last week it would remove the price tag from its Virtual Server and begin offering the virtualization technology as a free download to Windows users.

Virtual Server 2005 R2 Enterprise Edition has carried a price of \$199 since it shipped in December 2005. The news came on the opening day of the LinuxWorld Conference and Expo in Boston, where Microsoft also said Virtual Server add-ins to support Linux are available and that it would provide support under current Microsoft contracts for Linux guest operating systems running on Virtual Server 2005 R2. In addition, Microsoft said the first service pack for Virtual Server 2005 R2, which features integration with virtualization technologies from Intel and AMD, would be delayed until early 2007.

Microsoft also said the standard version of Virtual Server is being discontinued. For the 5,000 customers that have purchased Virtual Server, Microsoft said those with Software Assurance maintenance contracts would be "taken care of," but stopped short of saying Microsoft would offer refunds to those that had licensed the server. "It could mean different things for different [Software Assurance] customers," says Jim Ni, a group product manager for Microsoft's Windows Server team. "We want to craft something that is a win-win situation."

Ni said users without contracts have probably realized the value of their investment

through consolidation and other cost savings supported by virtualization.

Ni said Microsoft believes virtualization should be delivered as part of the operating system, and offering Virtual Server 2005 R2 for free provides a perfect way to get users started and on a path to Longhorn Server. That product, due to ship in 2007, is slated to feature an advanced virtualization technology called Hypervisor.

Experts say Microsoft's hand was forced by market leader VMware, which said in February it would offer VMware Server for free this summer, and by Red Hat and Novell, both of which plan to make open source Xen virtualization technology a part of their respective Linux operating systems.

"I don't think Microsoft had much choice in the matter," says Gordon Haff, an analyst with Illuminata. "The bottom line is there is not a whole lot of market to buy that product from Microsoft."

Microsoft is taking the same angle as VMware by offering introductory capabilities and then trying to move users to more robust features, such as Hypervisor and management tools, to support more important business processes.

VMware last week said that its disk-format specification for defining and formatting virtual machines will be offered for free. Depending on this format for virtual machine environments are patch, provisioning, security, management, backup and

other infrastructure products.

Microsoft has its own format called Virtual Hard Disk, which it began offering royalty-free last May, and the company announced last Monday it has 45 vendors signed on to the program. The newest licensees include

Brocade, Diskeeper, Fujitsu-Siemens, Network Appliance, Softricity, Virtual Iron and XenSource.

Virtual Server 2005 R2 runs on Windows versions 2003 and later (Microsoft recommends the Windows 2003 R2 version). ■

Nokia

continued from page 25

To do so, the enterprise division is working in four areas. First, it is creating a new breed of mobile terminals, exemplified by the E Series handhelds released in late 2005 and designed for business users. The E Series can run GSM, wide-band CDMA, wireless LAN, and Bluetooth interfaces, and support an array of corporate e-mail applications, VoIP and Session Initiation Protocol-based services.

Second, it is securing the data on the devices and the network communications, via Nokia's longstanding security-appliance business, which generates about \$300 million a year for the division, Cognet says. These firewall and VPN products are being refined to secure mobile devices better. "We'll keep adding to this [capability]," he says. "If a [mobile] terminal connects to the corporate e-mail infrastructure, the e-mail application has to be protected against a wider array of threats, since the [client] device is functioning outside the enterprise."

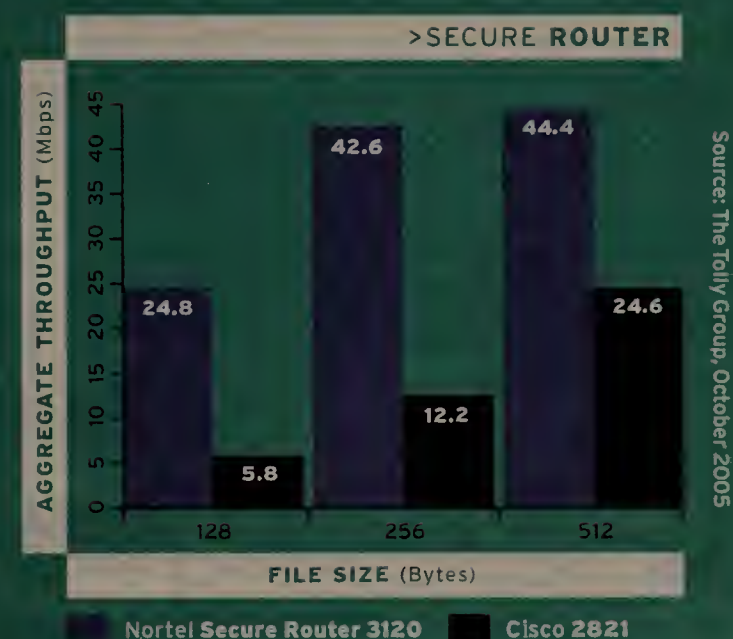
Third, it is bringing an array of enterprise voice and data applications securely to the mobile device. One key project is the initial

partnership, launched in 2005, with Avaya and Cisco to link Nokia mobile phones with their IP PBX products. "We think the cellular phone will be the primary business phone, a single number, a single voice mail system," Cognet says. Customer trials are under way, and Cognet says this capability will debut later in 2006. At the same time, to simplify connections with the Nokia Business Center middleware, the enterprise division has been forging partnerships with e-mail vendors and more recently with IBM, Oracle, SAP and other application vendors.

The fourth area is device management, now largely based on the Intellisync products, which support various operating systems. Until now, most of Nokia's focus has been on supporting its own Symbian-based devices. Is Nokia really willing to support non-Nokia devices? Cognet says he encountered that skepticism with Intellisync's carrier and enterprise customers.

"I told them, 'First, we are telling you that [supporting other platforms] is our intent, so judge us on our execution,'" Cognet says. "Second, the Enterprise Solutions division serves the enterprise, not [Nokia's mobile phone division]."

ANNOUNCING THE SECURE ROUTER PORTFOLIO BUILT FOR CONVERGENCE.



Introducing the Nortel Secure Router Portfolio. Finally, a portfolio that provides security and reliability, all at 25% less cost than the leading competitor. It is time to turn to Nortel for end-to-end, converged enterprise network solutions.

>BUSINESS MADE SIMPLE

nortel.com/securerouter

NORTEL

In Their WORDS

Vendor Solutions for Your IT Challenges

COMPANY: Lucent Technologies

DETAILS: As a leading global communications infrastructure provider, Lucent offers enterprises an in-depth portfolio of industry leading, award-winning VitalSuite® Performance Management Software solutions to help manage all aspects of IT network operations—effectively, efficiently with unparalleled ROI.

CHALLENGE: Does your network management system measure up? Now more than ever, delivering results relies on the way your network is managed. Your IT infrastructure is as important to your business as your products, services, employees and even your customers. Simply stated, you rely on the way you manage information to save time and money. This means you must:

- Optimize Your End User Experience
- Enable Converged Services
- Increase IT Staff Productivity
- Maximize Return on Network Investments

SOLUTION: Successful IT management means implementing an integrated system in which your network, your applications and your business processes work together to support strategic enterprise objectives. That demands visibility into, and control over, your entire infrastructure—the total visibility and complete control only the Lucent VitalSuite® Performance Management system can provide.

Winner of numerous industry awards, including the Network World "World Class Award" for best performance management system, the VitalSuite® Performance Management system is comprised of three advanced software modules for Application, Network and Real-time Event analysis offering you a comprehensive fully integrated solution in a cost effective package. Providing real-time views into everything from complex e-commerce transactions to mission-critical network resources, it lets you continuously monitor, measure and optimize performance at every level of your IT operations.

VitalSuite® software's business management innovations begin with My Vital, the personal window into your IT infrastructure. This web-based portal lets you create and display virtually any aspect of network and application performance: wireless, LAN, WAN, ATM, VoIP or Frame Relay quality indices; top applications and events; even specific e-business transactions such as order entry or credit authorization. Everyone from executives to engineers can create unique displays tailored to their individual requirements.

Lucent Technologies
Bell Labs Innovations



888-4Lucent
www.networkworld.com/lucentvs

E-MAIL NEWSLETTER SHOWCASE: Wireless in the enterprise

Wireless' 802.11 alphabet soup makes net execs review setup

BY JOANIE WEXLER

Enterprises are just ramping up with 802.11b/g-based Wi-Fi deployments. Relatively speaking, they have hardly touched 802.11a, which offers additional channels for design flexibility and interference avoidance in the 5-GHz range. 802.11a sees the most action today in the backhaul component of Wi-Fi mesh networks.

With another, faster Wi-Fi standard en route — 802.11n — should you simply bypass 802.11a? The answer depends on how broadly you use your Wi-Fi network and for what applications.

As you likely know, 802.11n promises to bring at least 100Mbps theoretical maximum bandwidth to wireless LANs (WLAN) by making use of multiple input/multiple output (MIMO) smart antennas. But because standards-based products aren't due out yet for another year, one integrator advises that enterprises simply ignore 802.11n for now and proceed with meeting their needs using what's available.

Jeff Nelson, vice president of wireless operations at integrator NetVersant Solutions in Houston, says that moving to 802.11n "will be a rip-and-replace effort" in terms of installing a whole new access point infrastructure.

That's true, if you require the performance benefits of 802.11n ubiquitously throughout your campus. However, note that 802.11n access points can be added incremen-

tally to your existing 802.11a/b/g networks; IEEE 802.11n draft specifications require that 802.11n be backward-compatible with these networks. And 802.11n vendors claim that mixing and matching 802.11a/b/g networks with 802.11n will provide up to a 50% performance benefit. So you could feasibly come out ahead by introducing 802.11n as you need new access points and, through attrition, replacing outdated ones.

But if your WLAN is for casual use or for low-bandwidth traffic, you might be inclined to wait. One company that expects to go this route is United Parcel Service (UPS).

"We'll likely leapfrog 802.11a and go straight to 802.11n," says John Killeen, director of global network systems at the Atlanta worldwide delivery company. UPS runs a 15,000-access point 802.11b WLAN that stretches across 2,000 sites, according to Killeen.

The reason for now is that most of the data UPS transmits over its WLAN relates to the company's global scanning system for package tracking.

"The data consist primarily of 18-character bar codes, which do not require a lot of bandwidth," Killeen explains.

Wexler is an independent networking technology writer/editor in Silicon Valley. She can be reached at joanie@jwexler.com.

E-MAIL NEWSLETTER SHOWCASE: Wide-area networking

Benchmarking helps determine how applications will perform

BY STEVE TAYLOR AND JIM METZLER

Last time, we pointed out that since a company's CIO as well as the company's business and functional managers care more about applications than they do about the WAN, WAN managers need to be able to demonstrate how the WAN enables appropriate application performance. The recommendation that we made was that WAN managers should benchmark any major new application that the company is in the process of deploying.

An IT organization can do the benchmarking themselves or use an outside vendor. The primary purpose of the benchmarking is to determine in advance how the application will perform when run over a production WAN and it endures varying amounts of latency, jitter and packet loss.

For example, before the typical interactive application gets deployed, there is a target for how long a transaction should take. For example, assume that the target is five seconds and further assume that if there is no WAN latency that the transaction completes in two seconds.

As part of the benchmark exercise, artificial amounts of WAN latency are introduced and the response time of the application is recorded. Typically, as the

WAN latency is increased, the application response time also increases. Ideally, the response time increases gradually as WAN latency is increased. However, in some instances application response time increases dramatically in response to only minor increases in WAN latency.

Assume that when faced with 300 milliseconds of WAN latency the application has a response time of 4 seconds, but if there is a WAN latency of 400 milliseconds, the response time jumps up to six seconds.

Armed with this information, the WAN organization can set thresholds throughout the WAN so that the appropriate people are notified when the WAN latency approaches 300 milliseconds. The reason for doing this is so that the WAN organization can know that one of the company's key applications is about to start performing badly and can take steps proactively to ensure that this does not happen.

nww.com

In your in-box

Sign up for this or any of Network World's many other e-mail newsletters.

www.nwdocfinder.com/1002

Taylor is president of Distributed Networking Associates and publisher/editor-in-chief of Webtorials. Taylor can be reached at taylor@webtorials.com. Metzler is the vice president of Ashton, Metzler & Associates. He can be reached at jim@ashtonmetzler.com.

APPLICATION SERVICES

■ CRM ■ MESSAGING/COLLABORATION ■ WEB SERVICES ■ ERP ■ E-COM ■ NETWORK AND SYSTEMS MANAGEMENT

Microsoft revamps SharePoint server

BY JOHN FONTANA

After several years without a clear focal point for its collaboration strategy, Microsoft now is planning to put SharePoint Server at the center of its efforts.

When Office 2007 ships to corporate users later this year, it is expected to include what today is known to more than 70 million licensed users as SharePoint Portal Server, but revamped and renamed Office SharePoint Server 2007. The software will be the foundation for sharing all the document types produced by Office desktop applications. It also will be the switching station for workflow, document routing and approval, instant messaging and presence information, business intelligence, search and electronic forms. Content Management Server features will be folded into SharePoint Server.

SharePoint Server will be pitched to corporate users as a multitasking, identity-enabled engine for hosting collaborative sites for the Internet and company intranets and extranets. Microsoft is planning an option for it to be licensed per CPU, so users can host Web sites on the platform.

Office 2007 plugs two glaring holes in SharePoint Server by adding offline client

capabilities, through Office Groove and Outlook, and a rapid application development tool called SharePoint Designer. The server also is integrated with Visual Studio 2005 and the .Net 2.0 Framework so developers can build and easily debug components that Designer will use to stitch together SharePoint applications. "This is the nod that SharePoint is the server we are going to put a lot of the collaboration work under," says John Carins, senior director of information worker licensing and packaging for Microsoft.

The message should have a familiar ring to many corporate users. Six years ago, Exchange was the darling of collaboration at Microsoft. The platform was infused with instant messaging and conferencing, and was groomed to support collaborative applications built with rapid application development tools. A much-touted feature that fell flat was the Web Store, a SQL-based virtual repository intended to house numerous document types, and let users and developers pull together data from across corporate servers and stitch it into sophisticated collaborative applications. "Exchange was just a little too early for its time," says Tom

Six sides of SharePoint

Microsoft cuts its SharePoint pie into six areas: the company is making heavy investments in these areas, with the server at the heart of the strategy.

Focal points	Features/capabilities
Collaboration	New templates for blogs, wikis, discussion groups, instant messaging presence information.
Portal	Targeting features display content based on user identity or group affiliation.
Business intelligence	Portal that includes Reporting Center, which puts SQL Server reports into SharePoint. Also integrates with Dynamics CRM.
Search	Key feature for collaboration, portal and business intelligence.
Enterprise content management	Content Management Server is folded into SharePoint and supports everything from Web-based content management to records and document management.
Electronic forms/workflow	Includes new InfoPath Form Services, which integrate InfoPath and Web-based forms.

Rizzo, director of SharePoint Portal Server at Microsoft. "But no matter where the technology sits, we have always had this vision of unified collaboration to make people productive, from the information worker to the IT pro all the way through to the developers.

SharePoint is evolving to solve that need."

Of course, strategy is all Microsoft has now, because SharePoint Server was not included in the first beta of Office 2007, and users won't get their first look at it until the

See SharePoint, page 30

Short Takes

■ **BMC Software** has made available two products it says can help customers better inventory their IT assets. Using technology from its Magic and Marimba acquisitions, BMC has upgraded its **Foundation Discovery** and **Topology Discovery** software to work more tightly with BMC's Atrium configuration management database product. Foundation Discovery performs agentless IT-environment discovery and inventory; Atrium CMDB collects and stores configuration data from IT assets; and Topology Discovery maps the relationships and dependencies among assets. They maintain an up-to-date database of configuration information. BMC Foundation Discovery costs \$12 per asset, and BMC Topology Discovery costs \$50,000 per instance.

Liferay overhauls open source portal

BY ANN BEDNARZ

A hallmark of the open source software community is the opportunity for IT executives to get close to developers and influence product development. Goodwill Industries International helped drive the security overhaul of the new version of open source Liferay portal software, expected to be announced this week.

Liferay Portal 4.0 lets individual users, groups and guests have portlet-level permissions. Administrators can set or restrict access to portlets and portlet objects, as well as delegate access authority to others.

"Not only did we add the security component, we rewrote every piece to hook into that security mechanism," says Brian Chan, founder and chief software architect of Liferay. "Before, it was set based on roles, and how you defined a role had to be customized between different implementations. Now every object in the system has a set of permissions, and you can manage all that through the GUI."

Those features are critical to Goodwill,

Room to grow

Gartner estimates
less than 1%
of Global 1000 companies have
deployed open source portals at
an enterprise level and
less than 3%
have deployed them at any level.

which runs job training and career services for people with disabilities, those on welfare and others in need. Liferay Portal 4.0 gives Goodwill more sophisticated control of security settings than was available in earlier versions, says Steve Bergman, CIO at the Rockville, Md., nonprofit organization. "We can assign security rights to individuals or put them into security groups so they have access to components that are appropriate for their activities in the portal."

IT staff also can delegate administrative tasks to local Goodwill locations so field

managers can control their own group's access privileges, says Michael Shollenberger, program manager at Goodwill.

Key to the overhaul is that Liferay didn't sacrifice the stability or performance of the application in the redesign of the security framework, Shollenberger says. "It's tough when you build an application and then need to revisit the granularity of the security model," he says. But Liferay managed to overhaul the security framework without degrading performance or sacrificing stability of the product, he says.

Goodwill started designing its portal, known as MyGoodwill, about two years ago. The organization considered commercial, off-the-shelf portal products as well as open source products when it started searching for a portal platform. "We knew we wanted to head down the Java path, based on our internal capabilities and our team's expertise. But we didn't know that we wanted to go open source," Bergman says. After fleshing out its business plan and doing a cost-

See Portal, page 30



NET INSIDER

Scott Bradner

'Net as a political tool, almost a joke

York Times to revisit the topic soon.

The story mostly talked about how campaigns are beginning to use the Internet to reach supporters or get their messages out in the face of the diminishing effectiveness of television advertising to convince people to vote for or against a candidate or issue. The story mentions a recent Pew Internet & American Life Project study that reported about 44 million Americans (*The New York Times* says 50 million) used the Internet to read news on an average day in December 2005 (see www.nwdocfinder.com/2924), up from 27 million in March 2002.

But the story did not mention that same Pew report's statistic that American broadband Internet users were almost twice as likely as dial-up users (43% to

26%) to use the Internet as a news source. Coupled with the increase in the percentage of Americans subscribing to broadband Internet services — it's now about 40%, up from about 18% in 2002 (see www.nwdocfinder.com/2925) — that means the number of Americans turning to the Internet for news will continue to grow.

Pew also reports more than half of Internet news seekers go to major news sites such as CNN and MSNBC, almost 40% go to portals such as Yahoo and Google, and a bit fewer than 10% read blogs. That last number might surprise some in the political game, because blogs had a major impact during the last election, mostly in discovering "misstatements" made by politicians or, in a few cases, news people.

In a not-unrelated story, the Fed-

eral Elections Commission (FEC) has preliminarily adopted a set of definitions for the term public communications, to be used in the context of the McCain-Feingold campaign reform act's restrictions on the use of public communications for political advertising. The definitions (www.nwdocfinder.com/2926) exempt most uses of the Internet from those restrictions; the FEC notes they specifically exempt blogs. About the only Internet-related things escaping the new definitions are paid advertising on the Internet and the requirement for a campaign to report any money it pays to bloggers.

So just when *The New York Times* reports on the Internet's impact on the political space, the FEC decides this space is mostly free of regulations. I agree with

what the FEC has adopted, but it's not going to make any easier the Internet user's job of finding nuggets of truth among the dregs of what passes for news and fact on the Internet.

Maybe it would have been better if *The New York Times* had published its story one day earlier: it's just the kind of almost-joke that is best published on that day (see "Almost a joke," www.nwdocfinder.com/2927).

Disclaimer: Harvard students can take a class in "Wit and Humor" (www.nwdocfinder.com/2928); I do not know if the class covers this type of bitter joke, so the above observation is my own.

Bradner is a consultant with Harvard University's University Information Systems. He can be reached at sob@sobco.com.

SharePoint

continued from page 29

second beta is made available later this year. General availability of Office 2007 for customers with volume licenses is planned for November; SharePoint Server is available only through volume licensing.

Some users say they like the direction and are mobilizing to get in line. "We are reengineering our entire product line to align with the extended capabilities and enhancements found in the next generation of SharePoint," says Cliff Lloyd, executive director of the Solutions IT Group for the Association of Independent Schools of Western Australia.

The association plans to expand its rollout to support 1 million students, using SharePoint for document and workflow management and site security. It also uses Windows SharePoint Services, a feature of Windows Server for creating ad hoc online workgroups, to support team collaboration sites.

"We will continue to base all collaboration, document and project work spaces and presence awareness on SharePoint," Lloyd says.

SharePoint's challenges

SharePoint Server faces a number of challenges — just as its predecessor Exchange did — in trying to become a hub for appli-

cation development and user collaboration. First, the server will have to prove it can scale to handle the Internet-facing Web sites users may build. Microsoft also will have to define clearly the differences and advantages in using SharePoint Server for Web sites rather than Internet Information Server and ASP.net.

Licensing will be watched closely also. Content Management Server licenses cost an average of \$20,000 to \$40,000; with the server now folded into SharePoint Server, the question is, will tiered pricing determine what features and functionality are available?

Given the breadth of SharePoint Server's capabilities, Microsoft will have to provide

users with clear starting points, experts say. "Something so users can say 'OK, we want to integrate that with our line-of-business applications. We want to map workflow to the reality of our approval processes,'" says Peter Pawlak, an analyst with Directions on Microsoft.

A major portion of the work needed to get users started likely will fall on the 800 SharePoint partners Microsoft already has. "You are going to see [independent software vendors] jump on SharePoint," says Brent Bolleman, strategic marketing manager for Colligo, which just shipped an offline client for SharePoint intended to eclipse the basic functionality offered with Outlook and the Groove client. The client has two versions: Reader, which lets users take documents offline for reading, and Contributor, which is an offline client for project teams that includes sophisticated replication features. "With SharePoint as the de facto place to expose all of these different content types, it gives you a central place where all these applications can have their content exposed to the network, where before all of it was segmented," Bolleman says.

The foremost challenge to SharePoint Server, however, will be the same one Exchange faced: IBM/Lotus. That Microsoft rival is reshaping its collaborative software around Notes/Domino and the Java 2 Platform Enterprise Edition-based Workplace platform, and is already positioning itself against SharePoint. "I am not that impressed with the directions that I'm seeing," says Larry Bowden, vice president of Workplace software solutions for IBM/Lotus. He says Microsoft is working toward a point Lotus was at 10 years ago. ■

Portal

continued from page 29

benefit analysis, Goodwill settled on Liferay.

"Our implementation costs — to get the application up and running and do the initial integration — are easily a third of what it would have cost us had we gone with [an off-the-shelf] product," Bergman says.

Not having to pay for software licenses let Goodwill dedicate more funds to integrating the portal platform with its back-end systems, including its Microsoft SQL Server database, e-mail system, and online training applications from Saba.

Six months after its initial deployment, MyGoodwill has about 6,000 active users and Goodwill is rolling it out to larger parts of the organization on a controlled basis. The portal is designed to accommodate as many as 100,000 users, Shollenberger says.

Using open source software for a mission-critical application is new to Goodwill. "I looked at this as an option a couple of years ago, but I just didn't feel like the industry was mature enough back then," Bergman says.

But the open source community has grown and matured a lot in the last two years, he says. "To develop an enterprise application of this magnitude in open source was taking a little bit of a leap of faith. But we've been very pleased with the effort," Bergman says.

Goodwill's experience with Liferay could lead to more open source deployments, he says. "Given this, I don't look at any new platform without also putting it side-by-side with the open source alternative."

An additional feature in Liferay Portal 4.0 is the ability to post pages and objects with public and private viewing properties; private pages are password-protected. Added

taxonomy features in Liferay Portal 4.0 let users create sub-portals within the corporate portal for a company division or branch office.

The portal conforms to the JSR-168 portal API, a standard designed to simplify integration among portal elements. In Version 4.0, Liferay has added support for the JSR-170 standard for content management systems (CMS).

In Version 4.0.1, Liferay plans to add support for a workflow portlet that integrates with the open source Java business process management engine, Chan says.

Liferay offers Professional and Enterprise versions of its portal software. The Enterprise version lets users cluster portlet transactions across multiple servers. Both versions are freely available under an MIT license. Optional support, training and professional services are available from Liferay. ■

SERVICE PROVIDERS

■ THE INTERNET ■ VPNS ■ INTEREXCHANGES AND LOCAL CARRIERS ■ WIRELESS ■ REGULATORY AFFAIRS ■ CARRIER INFRASTRUCTURE

EYE ON THE CARRIER

Johna Till Johnson



A few weeks ago I made the point that two of the most common models for describing the Internet have significant flaws that could lead to poor policy decisions. I'll focus on the issue of the "distribution model" and its effect on 'Net neutrality in an upcoming column.

For now, I'll revisit the issue of why the "utility model" of the Internet is flawed — and as a consequence, why we don't need universal broadband.

I've gotten a lot of feedback on my previous columns on the topic. Naysayers' comments basically fell into the following categories:

1. Broadband today is just like phone service was in the 1930s, when telephony was considered a utility on the order of electricity and water.

The argument sounds good, but it's flawed on a couple of levels. First, the electricity and water networks are managed regionally, not federally.

Second (and more important), the infrastructure required to benefit from the Internet is significantly more complex than that for the water and utility networks. To use water, all you need is a cup. Electricity? A lamp and light bulb will do. But to access the Internet, you need software, a computer and a cable or DSL modem. Providing broadband without any of these is like providing a car without an engine — it looks pretty, but it's useless.

Third, and most important, the Internet isn't something you can just "tap into" (like the energy and water grids). Truly leveraging the Internet involves creating and posting content (whether by e-mail, Web site, blog or an application that hasn't been invented yet). Any policy that aims to provide uniform high-quality access to the Internet would need to include all of the above — and again, simply providing a fat pipe doesn't help.

2. There's a digital divide between privileged and underprivileged citizens, and we need federal help to bridge it.

I can be as much of a bleeding heart as the next person, but check out this news: The digital divide is narrowing fast. Researchers are finding that groups that have historically been underrepresented

Why the Internet's not a utility

on the Internet — including African-Americans and other minorities — are getting connected at higher rates than practically anyone. According to Pippa Norris, one of the premier researchers of the digital divide, African-Americans are aggressively searching the Internet for employment and educational opportunities. The moral? The "underprivileged" may be pretty good at looking after themselves, after all.

3. The claim: Broadband isn't universally available.

That's true to a certain extent — many regions are out of reach for both cable and DSL. While satellite can get virtually anywhere, there are latency issues. But people can choose where to live. If it's not cost-effective to provide broadband services out to the boonies, why should taxpayers around the country have to subsidize those services? If a particular municipality wants

to tax its citizens to bring broadband to the boonies, it's certainly welcome to. But once again, that's a local — not a federal — issue.

The bottom line? The Internet's not a utility. And we don't need federal help to get ourselves connected.

Johnson is president and senior founding partner at Nemertes Research, an independent technology research firm. She can be reached at johna@nemertes.com.

VeriSign embracing mobile services

BY CAROLYN DUFFY MARSAN

VeriSign is expanding beyond its roots as a security and DNS specialist to become a behind-the-scenes provider of mobile content services through a series of acquisitions completed in recent weeks.

VeriSign is betting that mobile content will grow in the United States and Europe, as it has boomed in Asia. While most of this growth will come from the consumer market, VeriSign executives foresee opportunities for companies to provide rich content to mobile employees across a variety of devices, including cell phones and handhelds.

"The big portals and the largest consumer brands and media companies are starting to embrace using the content-to-mobile channel," says Jeff Treuhast, senior vice president of digital content services for VeriSign. "We expect to see a generous amount of new revenue for the media companies and the operating networks."

VeriSign expects that as mobile-phone users get more comfortable with downloading ringtones and taking pictures, they will be ready to interact with enterprise applications over mobile devices.

"Individual wireless subscribers who have used these features of their phones will now be more comfortable with using that technology to interact with applications in business life," Treuhast says. "The mobile knowledge worker might use this technology to handle trouble tickets or applications like upgrading seats on an airplane."

VeriSign sees itself as a provider of key pieces of the IP infrastructure required for mobile-content applications. That's where its recent acquisitions of m-Qube and 3united Mobile Solutions fit in. Both companies

VeriSign acquisitions at a glance

Company	m-Qube	Kontiki	3united	CallVision
Date	March	March	February	January
Description	Helps companies develop, deliver and bill for mobile content, applications and messaging services.	Technology speeds delivery of digital media, including VoIP networks.	Wireless applications service provider reaches more than 400 million customers, primarily in Europe and Asia.	Provides electronic billing and customer self-service applications to carriers.
Customers	Sony Pictures, CBS, Warner Music Group, Reuters	Sky, AOL and Verizon	SingTel, Mobilekom/Vodafone, Hutchinson3G	T-Mobile, Bell Canada, TelstraClear and AAPT.

help content providers develop, deliver and bill for mobile content, applications and messaging service. Together, they reach more than 600 million wireless subscribers in North America, Europe and Asia.

"Mobile messaging and mobile-content delivery is taking off, and VeriSign sees an opportunity to really get into the game," says Tony Rizzo, research director for mobile technology at The 451 Group. "These acquisitions allow them to do a variety of multimedia transactions. The consumer sends a multimedia bit like a photo with an audio clip, and VeriSign gets a piece of the transaction."

VeriSign also bought Kontiki, which provides peer-to-peer technology that speeds the delivery of IP broadcast services such as VoIP.

"Kontiki has a peer-based delivery system for TV-quality video that media companies can use to go direct to consumers over the Internet and enterprises can use to trans-

form the way they communicate with employees and business partners," Treuhast says. "The system that Kontiki has built allows you to automate the process so that the latest presentation from the CEO is always on the user's desktop. It gets pushed out to the machine."

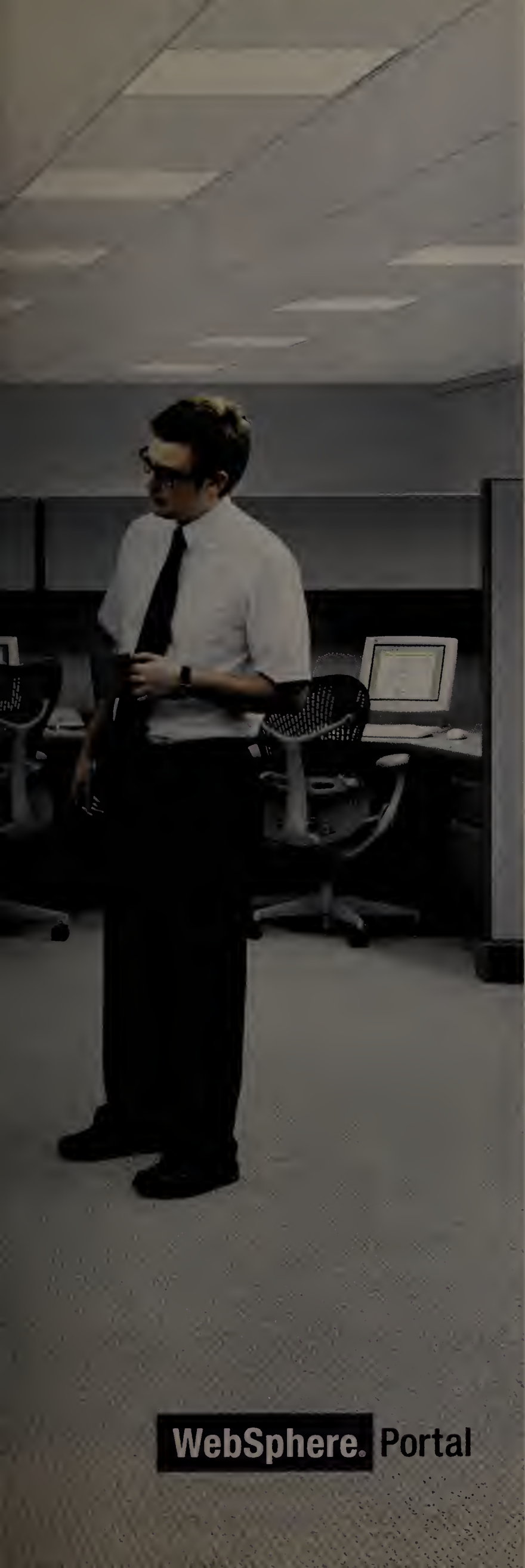
Analysts say it will be at least a year before enterprises start enabling their key applications to integrate with wireless devices and start using these devices for rich content, such as audio and video.

"It's at least another 18 months until this becomes a viable market, but it will definitely happen," Rizzo says. "Right now it's all about the consumer dollars. Everyone is putting their first effort there."

In addition, VeriSign bought mobile-billing services provider CallVision in January. CallVision provides T-Mobile, Bell Canada and other carriers with technology that supports electronic billing and customer self-service applications. ■

IBM®





WebSphere. Portal

_INFRASTRUCTURE LOG

_DAY 16: It's out of control. It takes people forever to access...everything. We can't get anything done. We're so inefficient. There's got to be a better way.

_DAY 17: Gil says he's found one: aerodynamic bodysuits. He says everyone will be able to work faster and better now.

_DAY 21: I've taken back control with IBM WebSphere Portal—a simple and fast start to a service-oriented architecture. It works with what we have and integrates the apps, processes and info our people need to do their jobs effectively. Works with our customers and suppliers, too. Now we have a customizable interface that puts everything at our fingertips.

_Productivity is up. Gil says that's great, but he refuses to take off his suit.

Download IBM's WebSphere Portal ROI Tool at:

IBM.COM/TAKEBACKCONTROL/PORTAL

Las Vegas April 30–May 5, 2006



**Register Today and
Save up to \$100**

Enter priority code
MLGANN34 at
www.interop.com/smart

INTEROP[®] MAKES YOU SMART

There's no better way to build your IT IQ than by attending Interop Las Vegas. In fact, it's a complete no-brainer. With over 200 sessions and 400+ exhibitors, you'll master key technologies, see the full range of IT solutions and gain invaluable insight from industry leaders.

Register today and save up to \$100. Use the Priority Code above to trigger your discount.

www.interop.com

TECHNOLOGY UPDATE

■ AN INSIDE LOOK AT TECHNOLOGIES AND STANDARDS

Patch proxy eases update pressure

BY FRED KOST

The pressure to patch servers is increasing as regulatory requirements drive rapid patch deployment. Many organizations have deployed patch-management systems to simplify and manage rollouts of security patches, yet they're still left with the need to test and verify that patches will not disrupt critical applications.

Patch-proxy technology offers a solution to the challenge of quickly responding to new patches. Patch-proxy companies offer functional substitutes for the original vendors' security patches, in effect providing proxies for actions of the vendor patches. Instead of testing and installing vendor security patches on servers, a patch proxy can be deployed to mimic the actions of patches that are not installed.

A patch proxy can be deployed in a network or on a host. The technology is primarily software, though it also can be delivered in an appliance form factor. Patch proxies rely on frequent updates to stay current with patch releases from operating system and application vendors. These updates are pulled down automati-

cally and deployed, much like anti-virus updates.

In a network configuration, the technology resides inline, monitoring client/server interactions, intervening when traffic accesses an unpatched server application or operating system, mimicking how the patch would perform had it been installed on the server. The patch proxy performs the same function as the patch, fixing an error in the original program, but in this case making a change in the session on the wire and forwarding the traffic to the server. The inline patch proxy makes changes to apply the necessary patches for sessions between a client and a server; therefore, it must maintain all TCP/IP session handshaking yet remain transparent to the server and the client.

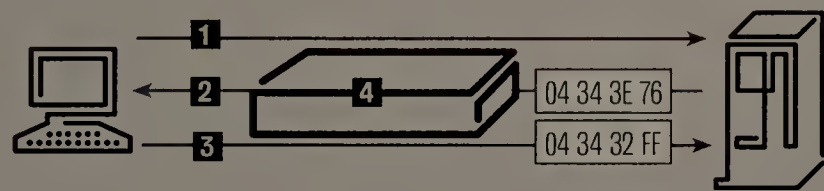
A network-based patch proxy requires no software installation or modification on the protected servers. If signs of a problem arise with an inline patch proxy, rollbacks are quickly and easily implemented.

When based in a host, a patch proxy must be installed on a server as an agent, monitoring activity from the application or operating system. When the patch proxy identifies a request that exercises logic for an unpatched vulnerability, the agent injects a fix in the code that is executing. Agent installation is less likely to cause disruption to a server than frequent installation of security patches, though it does directly touch the server and the application.

Consider as an example Microsoft patch MS04-045, which fixed a vulnerability in the Windows Internet Naming Service (WINS)

HOW IT WORKS: Patch proxy

Patch proxy technology stands in for an actual patch by applying the same corrective action.



1 Client initiates Windows Internet Naming Service (WINS) session with the unpatched server. Patch proxy begins monitoring the session.

2 Server responds to the client with a key value of 04 34 3E 76 for the WINS session.

3 Client changes key value to 04 34 32 FF and sends response to server, targeting the unpatched vulnerability.

4 The patch proxy fixes the key to the value the server originally sent, 04 34 3E 76, performing the same action as the vendor patch.

that maps IP addresses to NetBIOS computer names. A network-based patch proxy recognizes the WINS session to an unpatched server and applies the patch equivalent action to the session traffic, which in this case validates a key value in the request. The server is no longer vulnerable to the MS04-045 vulnerability, because of the inline action of the network-based patch proxy.

For the host-based approach, the patch proxy monitors the WINS session on the host by intercepting the request and making the appropriate change to the key value before the request is processed.

Because the technology in both cases acts as a cleanser — allowing all sessions to pass but applying only the same correc-

tive action that the patch would have performed, it delivers all of the value of the security patch. In the case of a network-based patch proxy, it also does this without requiring disruption to the server application with a (likely unscheduled) change window. Furthermore, since the action of a patch proxy is based on an actual vendor patch, it can deliver the value of the patch immediately and defend against any exploits that arise after the release of a security patch.

Kost is vice president of product marketing and management for Blue Lane Technologies. He can be reached at fkost@bluelane.com.

Got great ideas?

■ *Network World* is looking for great ideas for future Tech Updates. If you've got one, and want to contribute it to a future issue, contact Senior Managing Editor, Features **Amy Schurr** (aschurr@nww.com).

Ask Dr. Internet

By Steve Blass

I understand that Internet Explorer is being changed to disable the functionality of the object, embed and applet tags in HTML documents. How can I make sure our embedded content still works the way we want it?

You can replace the embedded content lines in your HTML files with JavaScript that calls code outside the HTML page to write the tags that are being disabled in HTML. To replace one instance of embedded content you can create an external JavaScript file that uses doc-

ument.write commands to create the same lines that you're replacing in the HTML file with the call to the external script. For example, you would replace `<object classid="clsid:deadbeef..."><param name="src" value="mystuff.xyz"></object>` with `<script src="fixit.js" language="JavaScript" type="text/javascript"></script>`, and then you would create a JavaScript file named "fixit.js" containing document.write statements that reproduce the embedded content code previously contained in the HTML file. For large numbers of pages with embedded content, you

can create external JavaScript files that use parameters passed in when you call the script to generate the HTML code. Then you can replace the disallowed sections of the HTML files with the JavaScript calls using the parameters to identify specific content. Examples and instructions for this workaround are at www.nwdocfinder.com/2930. More information is also available at www.nwdocfinder.com/2931.

Blass, a network architect at Change@Work in Houston, can be reached at dr.internet@changeatwork.com.

THE WORLD ACCORDING TO
ANTHONY



I've decided to change the rules. From now on, threats will be afraid of me. **Dynamic Networking from AT&T** analyzes real-time traffic over the AT&T network to predict security threats before they become security breaches. With firewalls and intrusion protection, the AT&T network provides Anthony with a front line of defense and the confidence to take his network wherever he needs. With real-time reporting of security issues, potential threats are on Anthony's radar, but not on his network.

The new



at&t
Your world. Our network.



GEARHEAD INSIDE THE NETWORK MACHINE

Mark Gibbs

Portable multimedia

Last week BackSpin touched on the immense pain in the butt that having content in a proprietary format can be if you want to use it on a system that doesn't support that format.

As was pointed out, should you want to play your iTunes digital rights management-protected music on players that aren't iPods you are SOL unless you want to jump through hoops such as burning an audio CD and ripping the tracks to MP3 or whatever format you need.

We have looked for an alternative and only found tools that work with pre-iTunes 6-protected files, or that resort to using iTunes to play the file and grab the sound card output and save it in a file. If you know a way to convert protected iTunes 6 files to another format, let us know.

The reason we want to know is that we just got our hands on a Wolverine MVP 60GB Portable Multimedia Storage and Player, and we wanted to load some music we just purchased from iTunes so we could be entertained on our next airplane flight. Unless you guys come up with something we'll have to resort to our old content.

The Wolverine weighs 10 ounces, sports a good-quality, 2.5-inch, 720-by-480-pixel color LCD (pictures and movies look very good, and video at up to 30 frames per second is smooth), and has a USB 2.0 interface for uploading and downloading content. The Wolverine MVP claims to have a

battery life that will transfer 20GB of data, eight hours of music playback, or three and a half hours of video playback on a single charge, but so far we haven't managed to use it for more than four hours at a stretch.

Physically the Wolverine is a little on the large side (5.04 by 3.01 by 1.2 inches). The front face contains the screen and controls — power on and off, escape and menu buttons along with a joystick.

The Wolverine is, to say the least, versatile.

The Wolverine is, to say the least, versatile. It can display text files, photos (JPEG, TIFF, BMP and some RAW formats), play videos (Motion-JPEG, MPEG-1, MPEG-4 and xvid), and play audio content (MP3, WMA, AAC and WAV) as well as record audio.

For anyone who needs to back up memory cards the Wolverine is really useful. It has slots for seven types of media: Compact Flash, 3.3V MicroDrive, Secure Digital, Multimedia Card, Memory Stick and Memory Stick Pro, Smart Media and XD. When a memory card is inserted the Wolverine automatically recognizes it and pops up a menu offering to back up the entire card or just the image files on it.

Two card slots (SM and SD/MMC/MS) are located on the left side of the Wolverine, along with a remote-control infrared sensor port (it comes with a remote control), a thumbwheel for photo zoom or volume, depending on the

content being displayed, a mini-USB port, and an AC power socket. The right side houses a Compact Flash/MicroDrive socket (under a rubber cover) along with sockets for audio in, audio out, and composite video out (you can select either phase-altering line or National Television Standard Code output).

Aesthetically there isn't much. The Wolverine is ugly. Its color is described as "Ferrari red," which is not quite accurate — a loud, cheap plastic red would be more accurate.

In fact the Wolverine is really an OEM version of a product from Asia, the VP6230 from Versonic, which has a silver finish that looks far more designed than the Wolverine's red finish. That said, the overall design of both versions is a little crude — the user interface, while perfectly functional, is not very slick, and the physical design of the buttons and joystick have a curiously '70s feel to them.

Bottom line: Forgetting the aesthetics (or lack thereof), this is a cool device. It performs well for picture or movie viewing, doesn't require proprietary formats, can back up many types of memory cards and is a very good audio player. You also can set music to play in the background while you view photos, and it has long battery life.

We really like this product and at around \$200 for the 60GB version it is highly competitive with the 60GB Apple iPod priced at \$400.

Now if you can just tell us how to get iTunes downloads to play on it, we'll be really happy. Your advice can be dispensed on Gibbsblog or drop us a line at gearhead@gibbs.com.



CoolTools

Quick takes on high-tech toys. Keith Shaw

The scoop: Flash Wristband (256MB), about \$40, from Imation

What it is: A USB flash storage drive with 256MB of capacity, the Flash Wristband is worn around your wrist instead of carried in your pocket or on a key chain. Made of the same materials as those yellow Lance Armstrong Livestrong bracelets, the Flash Wristband is a flexible option for carrying around your music, photos or other assorted files.

Why it's cool: I like this for the novelty of the design — the Flash Wristband enters the realm of gadgets that you can wear. The bracelet is thick around the USB port portion, but you can probably hide that on the underside of your wrist. And if someone asks you what cause you're supporting by wearing the wristband, you can proudly state, "I support the cause of proper data storage backup."

Some caveats: Of course, saying that in a crowd of younger hipsters might get you some strange looks. I showed the wristband to a person of the younger generation, and she wasn't impressed. Perhaps the colored wristband fad has gone away.

Grade: ★★★★★ (out of five)

The scoop: Store 'n' Go USB HD Drive, 8GB capacity, about \$200, from Verbatim

What it is: A lightweight portable storage drive with 8GB of capacity for all of your files, the 1.8-ounce Store 'n' Go fits snugly in the palm of your hand. The drive comes pre-loaded with Mobile Launchpad, a utility that lets users download applications that run directly from

the USB drive instead of the PC (aimed at mobile travelers who want to use different PCs and not leave any traces on them). A 4GB version for \$130 also is available, and the systems support Windows 98SE and higher (except for NT users), Mac OS 9x and higher, and Linux 2.40 systems and higher.

Why it's cool: Having 8GB fit in the palm of your hand is pretty impressive, considering that average users won't reach this capacity unless they're toting around a lot of videos. The USB port and cable pulls out from the device and can be re-attached for portability.

Some caveats: On one of my systems (a Windows XP laptop), I had some problems with the Mobile Launchpad (software provided by Ceedo) — an annoying pop-up window kept interrupting my ability to download applications and run the Ceedo application. Apparently there was a conflict with another application running on the Windows XP system, but I could not fix the problem or figure out a workaround. I switched the USB device to a Windows 2000 system and got a similar pop-up window, but this time the window suggested that in order to browse through the Ceedo application, I would have to close the other browser windows already open on the PC. I suppose that it's better to be safe than sorry and give users the warning message, but the wording of the text, and the annoying nature of the pop-up windows on my Windows XP system, made the experience less than enjoyable. I never thought I'd be happier running an application on Windows 2000 than on XP, but I was in this case.

Grade: ★★★★★

Shaw can be reached at kshaw@nww.com.



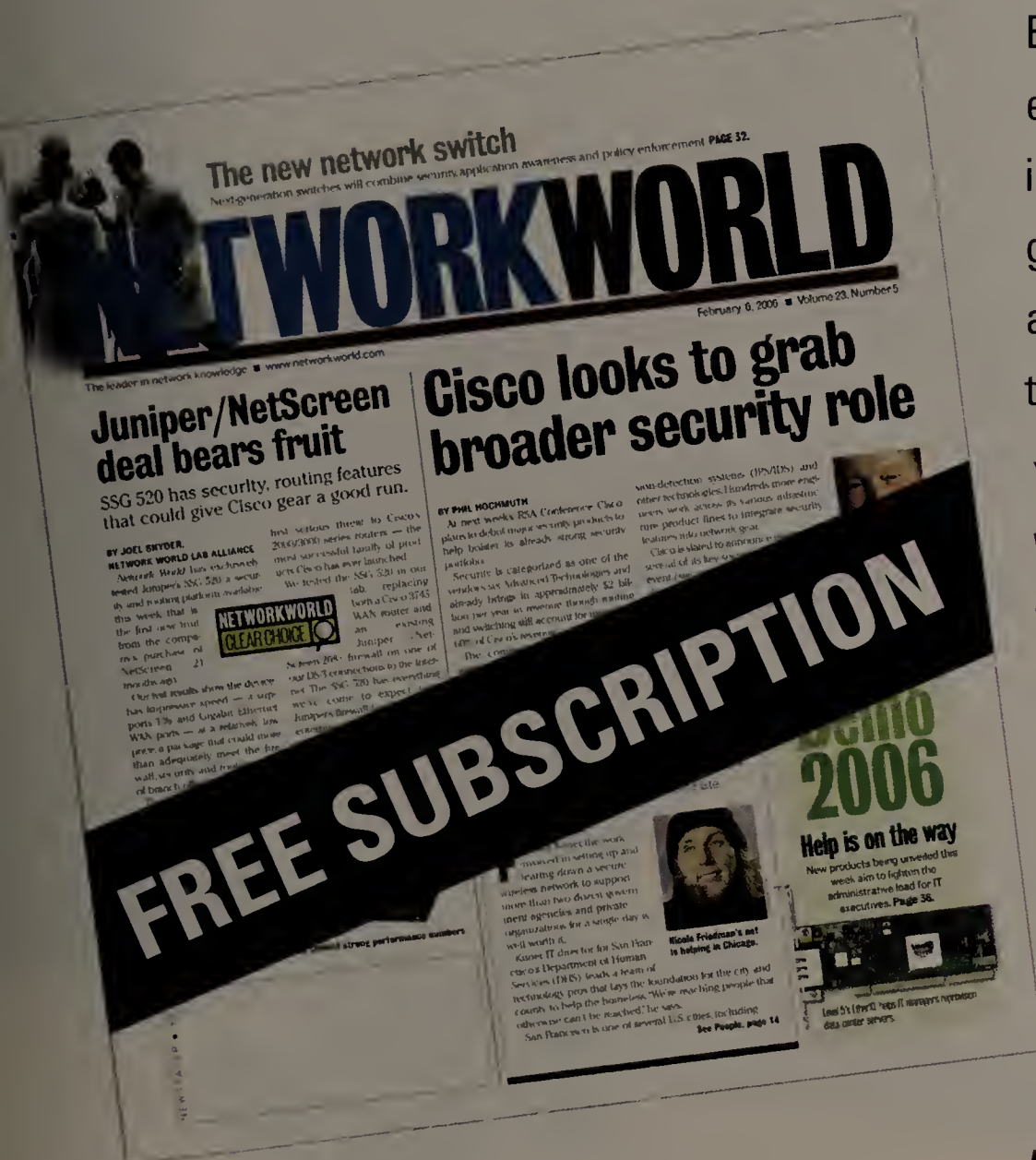
Store 'n' Go USB HD Drive fits in the palm of your hand and stores 8GB of data.



The Flash Wristband is a flexible option for carrying around your music.

NETWORKWORLD

SUBSCRIPTIONS



Each week **Network World** delivers an extensive line-up of product, service and industry news, analysis, case studies, buyer's guides, expert opinion and management advice that Network IT Executives rely on to get their job done.

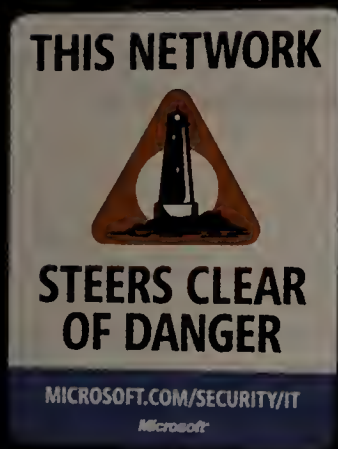
Your FREE subscription will include...

- New product information and reviews that break through vendor hype and put you in control of your technology purchases
- Implementation strategies and security tips and tricks that you can use to improve your infrastructure and boost your company's competitive standing
- Tried-and-true management strategies to help you boost your network career
- An insider's view on how your competitors are using new technology to their business advantage

Plus our Special Signature Series Issues—Each Signature Series issue provides insights, opinions and information on an important aspect of the industry to give you the clearest picture of the current trends and trendsetters in the Network IT market.

**To subscribe visit:
apply.nwww.com/free05**





Find tools and guidance to defend your network at microsoft.com/security/IT

- **Free Tools and Updates:** Streamline patch management with automated tools like Windows Server™ Update Services. And verify that your systems are configured for maximized security with Microsoft® Baseline Security Analyzer.
- **Microsoft Security Assessment Tool:** Complete this free, online self-assessment to evaluate your organization's security practices and identify areas for improvement.
- **Antivirus for Exchange:** Download a free trial of Antigen® for Exchange and arm your e-mail server with powerful multi-engine protection from viruses, worms, and inappropriate content.
- **Learning Paths for Security:** Take advantage of in-depth online training tools and security expert webcasts organized around your specific needs. Then test your security solutions in virtual labs, all available on TechNet.



On Technology
John Dix

Linux on desktop warming up

Linux on the desktop is still mostly a pipe dream because few large organizations are ready to make the switch, but that didn't seem to dampen the enthusiasm of proponents at the LinuxWorld conference in Boston last week.

In a panel discussion on the topic, representatives from a range of vendors said Linux on the desktop is becoming more feasible. Intel and Advanced Micro Devices representatives, for example, pointed out that schools in South America, India and Europe are early adopters.

And Greg Kelleher, senior program manager of IBM's World-wide Linux Desktop Strategy, argued that desktop Linux is perfectly appropriate for some segments of the domestic workforce, particularly transactional workers, who typically live in one application most of the day.

John Cherry, manager of the Desktop Linux Initiative for the Open Source Development Labs (OSDL), told attendees his group just made available a technology preview release of a set of common interfaces for Gnome and KDE, two popular Linux-based desktop environments.

This is the first fruit of OSDL's Portland Project, which "intends to generate a common set of Linux desktop interfaces and tools to allow all applications to easily integrate with the free desktop configuration" users choose. Portland is expected to encourage independent software vendors to step up their work on desktop offerings.

Why adopt Linux on the desktop? In a session about migrating Windows environments to Linux, Jon Walker, CTO of migration tool vendor Versora, listed a handful of reasons: security, usability, cost, avoiding vendor lock-in, and license leverage. But he cautioned buyers primarily motivated by savings to think again: "If cost is the No. 1 reason you're looking at Linux on the desktop, you're going to be disappointed."

A first step in any migration is choosing a Linux desktop distribution, of which there are hundreds. Walker likes to group them by what he calls their core philosophies: enterprise offerings include SuSE and Red Hat; pure open source offerings such as Debian; versions that are similar to Windows such as Xandros; and distributions known for ease of use such as Ubuntu and Mepis.

Other questions to consider include applications supported, maintenance and support offered, frequency of updates, ease of use and cost, Walker says.

Migration costs for one Versora customer with 1,500 desktops broke down this way: macro redevelopment, 1% of costs; training and support, 2%; indirect user expenses such as downtime and help desk calls, 46%; and migration cost, 51%. The customer calculated an ROI of three years.

That makes desktop Linux less dream-like.

— John Dix
Editor in chief
jdix@nww.com

Opinions

National broadband policy needed

Regarding John Till Johnson's column "Keep the feds out of broadband" (www.nwdocfinder.com/2922): I believe Johnson may not have considered the reasons that a national broadband implementation policy could be a good thing — perhaps even a necessary thing.

Johnson asks, "...who are we to dictate how people should spend their money?" Just as it was decided in 1934 that telephone access should be universal, it did not mandate that everyone had to purchase a telephone. The same concept is true of broadband. As non-broadband access continues to become more useless, broadband access will become a practical necessity, just as the telephone has. Without access to a broadband connection, it could very well become impossible to transact business or interact with a government agency.

A well-crafted national broadband policy could be just as useful today as universal telephone access was in 1934 to ensure that every American has the choice to purchase and make use of a broadband Internet connection.

I agree that the Universal Service Fund has had some management issues, but that does not mean we should stop making policies or spending taxpayer dollars on public projects that benefit U.S. citizens no matter where they live. Without a national broadband policy, there is no incentive or requirement for broadband providers to supply access to people who live in areas that would be unprofitable for the private sector to wire for broadband.

Larre Shiller
Baltimore

There are many places where DSL is not available, cable is not available and cell phone coverage is hit-or-miss. Not everyone lives in New York City. Com-

pared with Europe, we look like a banana republic. There is only one phone company choice for local service and one cable company (no choice) in many areas. If the political system is corrupt, the answer is to fix it, not outlaw laws.

The free market is only after a quick buck. Companies receiving a monopoly to provide services should be forced to provide them to all people in the area, and not cherry-pick high-profit sites and block other companies from servicing the area because their lawyers were smarter than the local politicians who gave away their citizens' rights.

Walt Adam
Auburn Hills, Mich.

Let the market decide

Regarding Mark Gibbs' BackSpin column "Who should control the 'Net?" (www.nwdocfinder.com/2923): While I agree that the Internet Corporation for Assigned Names and Numbers (ICANN) is an albatross, Gibbs' idea of the United Nations controlling the Internet is madness. Turning anything over to the U.N. is a recipe for disaster.

Let market evolution decide the Internet's fate. Eventually, parts of the 'Net will collapse under the strain, and something better will rise from the ashes.

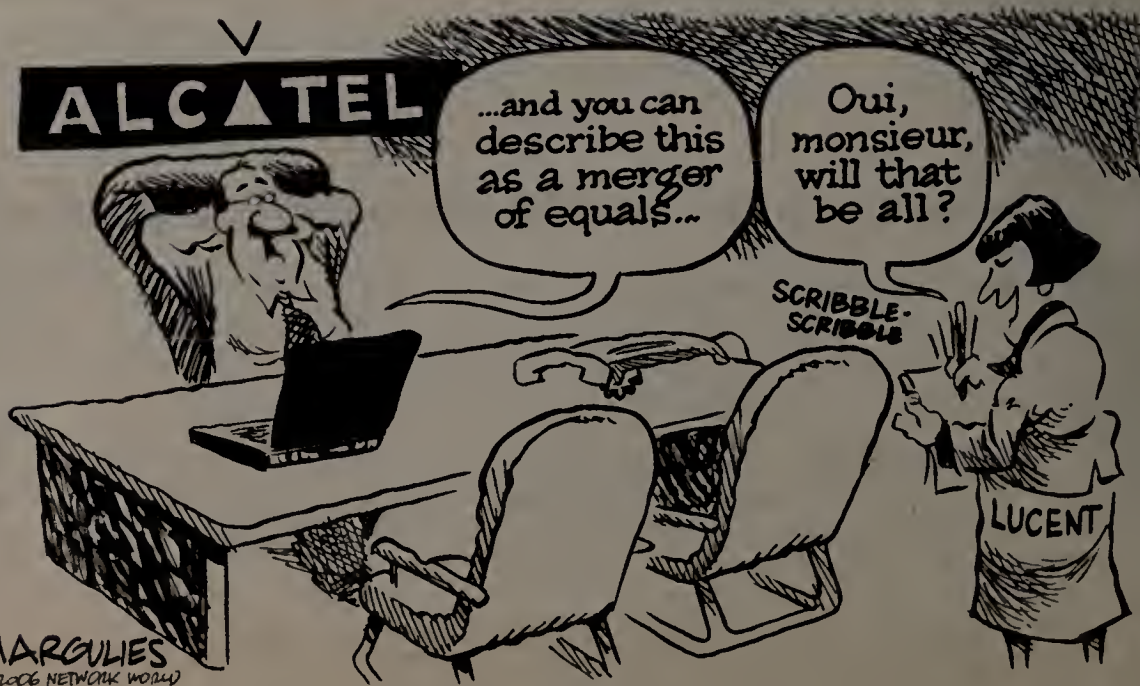
I hope we geeks finally will complete a nationwide wireless network in the spirit of the original Internet to get out of the over-commercialized, over-controlled Internet. ICANN can manage whatever's left.

Kendall Sears
President
Technology Resources Development Consulting
Mauckport, Ind.

E-mail letters to jdix@nww.com or send them to John Dix, editor in chief, Network World, 118 Turnpike Road, Southborough, MA 01772. Please include phone number and address for verification.

nww.com

Readers respond Find out what readers are saying about these and other topics.
www.nwdocfinder.com/1030



MARGULIES
©2006 NETWORK WORLD

When a product is better than the company



BOTTOM LINE
Joel Snyder

As a product tester, I always tell people: The product speaks for itself. White papers, customer wins, marketing spin: None of that counts. I don't have to be convinced by a public relations person that the product is good, because good products prove themselves in our lab. In 2004, when I last tested mail security appliances, CipherTrust's IronMail was on our short list as a top finalist. It's a good product, and it proved itself in our labs.

There's something we didn't tell you about that test, though. After the test was underway, CipherTrust engineers logged on to our test bed (I had forgotten to close the hole in the firewall we had opened so that they could help with installation), changed the passwords on the IronMail system and shut it down. We found out about it a few hours later, not because they told us, but because our monitoring systems saw the outage. It was an unprecedented action on the part of a vendor. CipherTrust explained it as a miscommunication — they were monitoring the results and weren't getting the effectiveness they had expected, and someone panicked and ordered the shutdown. After some tense and angry negotiations, we put them back in the test.

We didn't write about it because, well, "products speak for themselves."

I had forgotten about it until recently when a consulting customer hired me to help select an e-mail security appliance. CipherTrust was on their short list, and they asked us to do extended and intensive testing of a few products. We decided to buy some products, including the CipherTrust system, to give us freedom in our testing and report-

Tests aren't enough. It's important to investigate all those peripheral aspects of the vendor before you sign a purchase order.

ing. That seemed easy enough, except that CipherTrust wouldn't let us buy a box.

The salesperson was ready to give us a local value-added reseller (VAR) so we could buy the \$5,000 unit. But then he passed me over to CipherTrust PR, which passed me over to the vice president of sales, who passed me to a fourth person so we could apply to be a member

of their partner program. This was getting ridiculous, so I explained again that I simply wanted to buy a box for my own company to use. This time, silence. No reply.

After waiting a week, I found a VAR and ordered a system. Then the VAR called back: CipherTrust refused to fill the order. Why is CipherTrust unwilling to sell me a box? I don't know; they aren't talking.

More frightening than my experience is the possibility that the company might do this to an existing customer. What good is a security product if the vendor refuses to sell you service on it? Without updates, most of these products are barely useful as doorstops.

In our tests, we look at products, not companies. Things such as training, finances and corporate style don't come into it. But when it comes to buying products, our tests aren't enough. It's important to investigate all those peripheral aspects of the vendor before you sign a purchase order. I was reminded of that the hard way.

Snyder, a Network World Test Alliance partner, is a senior partner at Opus One in Tucson, Ariz. He can be reached at Joel.Snyder@opus1.com.



REALITY CHECK
Thomas Nolle

Will the AT&T-BellSouth merger hurt IP TV?

The term IP TV can mean a range of things, but to most people in networking it means AT&T's Project Lightspeed. Promising broadcast channels over IP using multicast technology, Lightspeed would drive a radical shift in metropolitan and access networking. It's no wonder people are speculating about the effect AT&T's acquisition of BellSouth will have on Lightspeed. Although most think it will be positive, they're probably wrong.

There are three possible reasons why AT&T wanted BellSouth. The first is the Cingular mobile service the two companies own: AT&T buys BellSouth and gets it all. The second is economies of scale: consolidation in an industry under continuous price and margin pressure. The third is to obtain BellSouth's customers to exploit them for existing and new services. Obviously, if the merger is to promote IP TV, reason No. 3 has to dominate.

Wireless has been more profitable than wireline or broadband for U.S. carriers overall. AT&T and BellSouth's joint ownership of Cingular may have limited AT&T's willingness to throw capital at the wireless venture. Spectrum investment could be a priority in the next several years. The FCC is promising to open up new space for wireless services, and what Cingular doesn't get will become available to competitors. Lose spectrum space to a wireless competitor, and it haunts you forever. AT&T might well want to focus its investment dollars on buying up as much spectrum as possible.

Then there's fixed/mobile convergence (FMC). One application of FMC is to offer customers the ability to transfer calls between home and office phones and cellular seamlessly, using 3G/Wi-Fi

dual-mode instruments. This makes both wireless and wireline voice stickier, meaning it's harder for competitors to steal customers. Owning all of Cingular lets AT&T gain all the benefits of any FMC investment it makes.

Consolidation also makes sense as a reason for the merger. AT&T has indicated \$2 billion could be saved through operational consolidation. Since the collapse of the dot-com bubble, Wall Street has tended to reward companies more for reducing cost than for investing to obtain future profits. The merger could help consolidate long-haul voice and data costs, letting AT&T funnel all its traffic onto a common national backbone.

Lose spectrum space to a wireless competitor, and it haunts you forever.

But how about the customer base? At the business level, BellSouth's doesn't look that promising. My statistics indicate the BellSouth region contains only about 11% of enterprise headquarters sites. Most enterprise services are purchased where a company is headquartered. Furthermore, business service revenues have been consistently trending downward, so unless AT&T has some magical approach to reversing this trend, buying more business customers means buying losses.

That leaves the residential base and IP TV. It's pretty clear the opportunities in IP TV are related to the number of a territory's households and their overall distribution by income level. What you'd like to see in an IP TV prospect base is a

bunch of yuppie households dedicated to the latest gadgets and eager to spend their disposable income on new stuff like video content. Does that describe BellSouth's territory?

It doesn't describe even AT&T's current territory all that well. The median household income in Verizon's territory is a bit more than \$60,000. For AT&T that number is \$52,000, and for BellSouth it's about \$45,000. No state in BellSouth's territory has a median income matching the AT&T territory's average, and only one Verizon state has a median income lower than that in BellSouth's states.

The relationship between household income and IP TV potential is controversial, with many believing the RBOCs are cherry-picking upper-income and avoiding lower-income areas. Such a move would seem to violate current regulations, but the fact is, target locations for RBOC video deployment have been a bit upper crust. Given this, how can you justify believing that the BellSouth territory's income would promote more IP TV deployment?

Bottom line, the AT&T and BellSouth states' combined prospect base is a more difficult market for IP TV than the AT&T states' base alone. Lightspeed was supposed to roll out last year, then early this year, then late this year ... and this was before the BellSouth deal. It's just not logical to believe adding BellSouth to the mix will change things for the better. Lightspeed's future is getting darker.

Nolle is president of CIMI Corp., a technology assessment firm in Voorhees, N.J. He can be reached at (856) 753-0004 or tnolle@cimi corp.com.

FEDERAL IPv6 SUMMIT



May 17-19, 2006
Hyatt Regency
Reston, Virginia

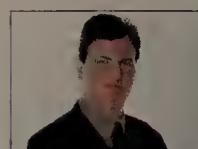
Benefits ■ Innovations ■ Solutions

The U.S. Federal Government has mandated the adoption of the New Internet (Internet Protocol version 6, or IPv6), the massive upgrade of the existing IPv4 standard, in use since 1973. The transition to IPv6 offers major opportunities – and challenges – for every Federal department, which will be identified and discussed by experts in this unique conference.

The Federal IPv6 Summit will feature senior political and military leaders, IT organization executives, ISPs and first responders – who will identify their visions of how the government will benefit from IPv6, how this transition will take place, and what roles industry should pursue.

This is a must-attend event, especially for those working for or in support of the US Federal government.

There will also be demonstrations of new IPv6 applications, including up-to-the-minute reports on the first IPv6/WLAN city in America!



Alex Lightman
Chairman,
Federal IPv6 Summit 2006

REGISTER ONLINE:



federalipv6summit.com

Wednesday, May 17 IPv6 Workshops

- IPv6 Transition Management Track
- IPv6 Technical Track

Thursday, May 18 Keynotes and Panels

- IPv6 as the Foundation for Federal Interoperability
- IPv6 Benefits for Enterprise-Centric Government
- IPv6 Working Group for CIO Council
- Building IPv6 into the Enterprise Architecture

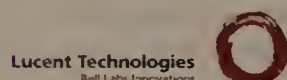
Friday, May 19 Keynotes and Panels

- Innovation via IPv6
- Virginia shows IPv6 Leadership
- First Responder Requirements & Applications
- Katrina Panel: ERM and IPv6

GRAND SPONSOR



GOLD SPONSOR



SILVER SPONSORS



MEDIA SPONSORS



More Info:

TEL: 310.458.3233 EMAIL: info@usipv6.com

federalipv6summit.com

PRODUCED BY:



IN CONJUNCTION WITH:

IPv6 Transition Workshop
Transitioning to IPv6



BY ANN BEDNARZ

There's a forum on the Securities and Exchange Commission Web site where a company can comment on its experiences implementing the control provisions required by Section 404 of the Sarbanes-Oxley Act.

Dozens of executives have filed comments — many of which describe unreasonably onerous, expensive compliance efforts.

"Based on our own experiences and the experiences of our peers, we believe that the effort and costs to comply with the standard have been extraordinary," said Paul Zeller, vice president and CFO of Imation in Oakdale, Minn., in a statement. "We have incurred approximately \$1 million in external costs and substantially more in internal costs, such that total SOX costs approximate 5% of our 2004 operating income."

William Krepick, CEO of Macrovision in Santa Clara, describes spending \$1.1 million to hire outside consultants and \$1.2 million to pay incremental audit costs to its public accounting firm during a two-year period that ended last March. In addition, the company has spent thousands of man-hours to implement Section 404, which has diverted attention from other company projects, according to Krepick.

"These distractions have resulted in delays in our investments in new projects and new technologies that would otherwise make our company more profitable and

See SOX, page 48

IBM, the IBM logo and WebSphere are registered trademarks of International Business Machines Corporation in the United States and/or other countries. ©2006 IBM Corporation.
SAP is a registered trademark of SAP AG in Germany and in several other countries. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. All rights reserved.





_INFRASTRUCTURE LOG

_DAY 8: I give up. Our infrastructure is so inflexible. Our apps and processes don't work together. We can't respond quickly to change. It's out of control.

_Gil had an epiphany. Duct tape. A few dozen rolls later and he's integrated everything, and everyone, by hand.

_DAY 10: Duct tape can fix many things. Basketballs. Sofas. Doorknobs. But not widespread app and process inflexibility.

_DAY 13: I've found something better: IBM WebSphere middleware. It'll make our infrastructure more flexible by seamlessly integrating our apps. We can change processes in a snap and use what we already have—even apps from SAP and Oracle. And with IBM's industry-specific expertise, we're on our way to enabling a service-oriented architecture.

_Hmmm...WebSphere. More powerful than duct tape.

WebSphere.

Download our IBM SOA assessment tool at:
IBM.COM/TAKEBACKCONTROL/SOA

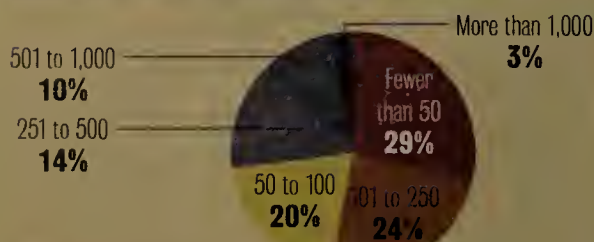
The high cost of compliance

Ernst & Young surveyed 255 companies with two years of Section 404 compliance under their belts. Respondents shared details about what it took to achieve initial compliance.

The big fix

Among respondents, 13% had to fix more than 500 controls.

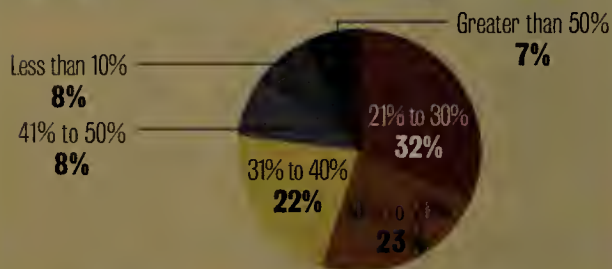
Number of control deficiencies remediated:



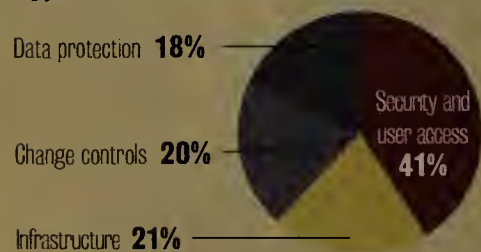
Problem area: IT

Among respondents, 72% said that IT was a key area in need of remediation.

Section 404-related controls that were IT-based:



Types of IT internal control issues:



Laboring in obscurity

More than half of respondents invested between 10,000 and 50,000 hours to comply.

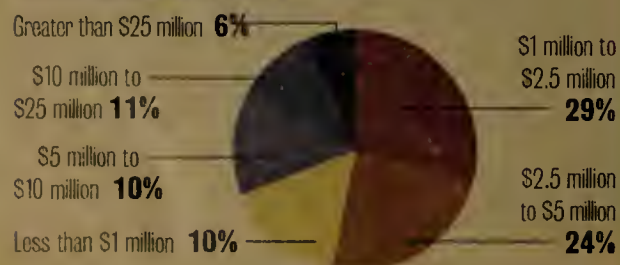
Level of effort in hours:



Paying the price

More than half of respondents spent between \$1 million and \$5 million to comply.

Total Section 404 costs



SOX

continued from page 45

more competitive, which we believe our stockholders would rather have us focus on than creating massive amounts of paperwork to document SOX 404 compliance," Krepick comments.

Since the passage of SOX in 2002, companies have complained about the legislation designed to help restore investor confidence in the wake of accounting scandals at Enron and WorldCom. The source of many complaints is Section 404, which requires companies to attest to the effectiveness of internal controls to safeguard systems and processes related to financial reporting.

Under the SEC's two-tier approach, the largest public companies had to begin complying following their first fiscal year that ended after Nov. 15, 2004. The SEC extended the deadline for smaller public companies until July 2007, following a backlash from companies that said the requirements are too onerous.

Money for nothing

Meanwhile, analysts have tried to come up with guidelines on how much it costs a company to comply with SOX. The rule of thumb has been an average of \$1 million in SOX expenses for every \$1 billion in revenue.

Those numbers have held fairly firm over the last couple of years, on average, but there's a lot of variation among companies when it comes to the effort and expense required to comply, says John Hagerty, an analyst at AMR Research.

"A lot of it has to do with how a company is organized," Hagerty says. "If a company is very centrally managed, then they do it once and it applies to everybody. If a company is decentralized, there's a very good chance they have to repeat the same process in every location."

Collectively, companies spent \$2.5 billion on SOX compliance in 2003, \$5.5 billion in 2004 and \$6.1 billion in 2005, according to AMR. The firm estimates spending will reach \$6 billion this year, divided among internal labor (39%), technology (32%) and external consulting (29%) expenses.

Where the money comes from can be tough to track. Some may come from a company's general operating budget, other money from IT, financial and auditing department budgets. "The budget is really spread in a lot of different places," Hagerty says.

What's clear is that compliance efforts will consume a significant portion of IT resources. The majority of CIOs expect 10% or more of their 2006 IT budget to be dedicated to SOX-based compliance, according to Gartner research.

Often that means IT projects without a compliance payoff get relegated to the back burner. "Twenty-seven percent of CIOs are saying that they're getting dedicated funding for compliance for 2006, 22% say they don't know where the money is going to come from, and the rest are getting the money by deferring other projects, that sort of thing," says French Caldwell, a research vice president at Gartner.

The good news is that as public companies accumulate SOX experience, the price tag for compliance is expected to decrease gradually. "It is getting cheaper. We're seeing an increase in IT budgets [dedicated to SOX projects], but that's more than being offset by the decrease in what companies are going to be paying consultants and auditors," Caldwell says.

First cut is the deepest

Mark Guth, manager of IT networks at Nicor Gas in Naperville, Ill., estimates SOX compliance accounted for about 2% of operational expenses in the IT department in 2005. That's down from the year before, when the natural gas distribution company started its SOX efforts in earnest.

"What we discovered is that there's a very high entry cost to comply," Guth says. "Once we adopted procedures and made it part of our normal monthly and quarterly routines, we dropped the manpower requirements by almost 90%."

In 2004, Nicor's IT department spent about 8,500 hours to set up, test and work through compliance issues. "In 2005 it took us only about 900 man-hours to execute all those tests, compile the results and be at the same level of compliance that we were in 2004. In fact, we were better off in 2005 from a compliance standpoint," Guth says.

One tool that helped is the ArcSight Enterprise Security Manager, which collects and analyzes security data from devices such as firewalls, routers, switches and servers. Nicor uses it to correlate relevant security information and assess vulnerabilities — in particular with respect to system access requests.

The ArcSight software isn't solely responsible for the 90% drop in manpower, but it has helped Nicor to spot potential security issues more quickly and correct them before they multiply and require more resources to handle, Guth says. "We've been able to clean up our security event log to the point where we feel much more confident about what's traveling around the network and where we stand with respect to compliance."

Micros Systems of Columbia, Md., also found compliance costs fell after the first year. Micros' tab for complying with SOX was in the range of \$3 million to \$4 million in 2004. For 2005, Micros shaved off at least one-third of those costs, says Carmen Requena, an internal auditor at the company, which makes software for restaurants, hotels, casinos and retailers. "A lot of extra effort had to be put in the first year," she says.

To help with the effort, Micros deployed software from OpenPages, which helps manage internal controls documentation and certification processes across all of Micros' 60 worldwide divisions.

The company also reduced professional services expenses by establishing an internal SOX audit team and merging the group with Micros' internal financial auditing department, Requena says. Everyone is smarter about SOX requirements in general, so the auditors — internal and external — are more in sync about what types of controls need to be in place and tested.

"Last year was almost like an ongoing, continual audit," Requena says. "There was always someone asking for something." This year will go more smoothly, because internal and external auditors are clearer about what they're looking for, she says.

Productivity takes a hit

For IT, the SOX burden isn't just about diverting staff and funds to compliance-related projects. In some cases, compliance takes a serious toll on IT productivity.

Archer Daniels Midland Investor Services (ADMIS), a Chicago financial services company, is a subsidiary of the \$35 billion agricultural processor, ADM.

While parent company ADM coordinates all SOX

See SOX, page 50

Success

Windows

RFID



Your best

EXPOSURE

Best practices

ROI

Compliance

Linux

C3 EXPO returns in 2006 as the premier IT event. It's the only computer industry event where corporate and channel buyers are exposed to the most innovative End-to-End Solutions driving the technology industry. All in one place. And at one time.

Network with your peers, meet industry leaders, get the information you need to compare best practices and make the most informed decisions regarding your company's technology investments.

Also, attend the most comprehensive Compliance seminar program in the IT industry presented by ISACA. And gain insights from colleagues and top industry professionals.

to the world of IT

The Jacob K. Javits
Convention Center, NYC
June 27-29, 2006

Visit  COMPLIANCE
WORLD AT C3 and
discover how to achieve and
maintain automated compliance

IBM

redhat.

ISACA

bea
Think liquid.

CSC
EXPERIENCE. RESULTS.

SNIA
Storage Networking Industry Association

ERNST & YOUNG

ISSA
Information Systems Security Association
The Global Voice of Information Security

Complianceonline
The Most Comprehensive Resource for Compliance & Quality



HA Bruno LLC
210 East Route 4, Suite 304
Paramus, NJ 07652

For information or to Register Online Now,
visit C3EXPO.COM/NWW or call 201.543.5060 ext. 606

SOX

continued from page 48

compliance efforts for the entire business, ADMIS operates its own IT systems and is responsible for executing the compliance provisions required. "In the past it's been a huge advantage because we are a smaller shop and we could move faster and quicker and bring things into a production mode a lot quicker than a huge shop because we're more flexible," says Sam Helmich, vice president of technology at ADMIS. "Well, we've lost that productivity."

Because of the processes ADMIS had to put in place for SOX, Helmich's 15-person staff spends a lot more time doing paperwork, waiting for approvals and handing off projects — to avoid creating a segregation-of-duties conflict — instead of seeing them through to completion. "It's a time drain," Helmich says. "Because of SOX, my team's productivity has dropped 20%."

Segregation-of-duties issues also drove up spending on IT gear at ADMIS. Helmich has to provide separate systems for development and testing that aren't tied to production systems. "I can't have developers running on the same system. Even though they were segregated and couldn't affect production data, I couldn't have them even accessing the same system," he says.

That meant spending about \$500,000 to upgrade the firm's IBM AS/400 systems last year. "I ended up buying a machine that's three or four times more powerful than what I really would have needed so that I could create LPARs — virtual logical machines — so that there's total segregation between development, testing and production environments," Helmich says.

Helmich also had to buy more Intel servers for his development environments. Having more boxes and more complex gear to manage adds to the SOX tally. "It takes more systems management time to handle more systems and keep everything segregated," he says. "It's a trickle-down effect."

One bright spot is that Helmich has found ways to satisfy some requirements using software he already had.

ADMIS has been using Team 2, a task-management application from software maker Alexsys, since 1998 to keep track of help desk tickets and work orders. Helmich found he can manipulate the software's rules engine to create some of the process controls and audit trails he needs for SOX compliance.

For example, ADMIS is using Team 2 to track requests for software development and programming projects. The software creates an electronic trail that starts with a work request and runs through the project design, testing, implementation and post-rollout phases. "We're using it as a project management workflow tool," Helmich says.

There are a few more processes Helmich plans to automate with the Team software. It's just a matter of finding the time, he says.

Segregation anxiety

Some companies have created new positions inside IT to deal with compliance challenges.

Security software maker McAfee hired Mark Homs to handle security and compliance issues related to the company's SAP system. "I deal with the internal audit people, the Sarbanes-Oxley committee, CFO, CIO, end users and anyone in between," says Homs, whose title is SAP security manager.

Before joining McAfee, Homs led SAP security at a Northrop Grumman division, worked as a consultant

and did a brief stint with a vendor of SOX-related software. His expertise lies in the intricacies of SAP configuration and the design of sustainable security schemas for ERP systems — a key asset in today's SOX world. "Sarbanes-Oxley helped advance what I do," Homs says.

SAP applications are extremely flexible, and controls are complex. Choosing the best way to configure security settings isn't intuitive, Homs says. "Some of the ways you can achieve the controls are maintainable, and some are not. That's where a lot of companies have had problems."

When Homs came on board at McAfee, he helped rewrite its SAP security framework and bought software from Approva to help manage and strengthen the company's business controls. The vendor's BizRights plat-

Shopping for software

Spending on compliance-related software between 2004 and 2009 is projected to soar, according to research firm Gartner.



form helps McAfee spot and remediate risky configuration settings, policy violations and role conflicts, for example.

Without a tool such as Approva, getting to the root of an issue takes a lot of work. For example, if the accounting department wants to restrict access to a particular transaction, Approva makes it easy, Homs says. "Approva can show me who has access to this transaction. But it won't stop there. It will say 'this is who has access to the transaction, this is how they get it, this is what authorization value gives it to them.' That saves me just countless hours of research."

SAP doesn't provide that kind of reporting natively. The information is out there, but it's not easy to correlate, Homs says. Approva does the correlation automatically, which justifies the investment in the software, Homs says. But putting an exact number on the return is difficult. He estimates by automating a lot of functions with BizRights — such as user provisioning, compliance monitoring and workflow — McAfee avoids having to retain about one-half of a staff member.

"Just the ability to make sure previous issues don't creep back into systems is really important because then we don't have to refix things," Homs says. "There's definitely a return on investment."

Financial services firm Harris also has found an ROI

with its purchase of software from LogicalApps.

Darlene Mac Cormac knew segregation of duties was an area she'd have to address. Mac Cormac is vice president of procurement and strategic sourcing at Harris in Chicago, which is part of the publicly traded BMO Financial Group.

The companies' existing review process was manual and incredibly time consuming. With all the steps required, it took Harris about two months to go through its annual segregation-of-duties review, Mac Cormac says. "It was just a waste of senior people's time."

A few months ago, Harris went live with LogicalApps' software, which embeds controls for enforcing regulatory mandates and business policies within the firm's Oracle ERP applications. The controls help manage user access privileges, for example, while dashboards and reporting features alert managers to potential red flags. "Now when we do these audits we're not doing them manually, once a year, for at a point in time," Mac Cormac says.

In addition, Harris has been able to close hidden gaps before they were exploited. "No matter how thorough a job we thought we were doing, we knew we weren't catching everything, and that was blatant the first time we ran the LogicalApps tool sets," Mac Cormac says. "When they came out with the reports, I was floored at some of things that people could do. We'd just never realized because we'd never dug that deep."

One big payoff is in manual time saved. "It paid for itself in the reduction in time for doing our regular routine audits," Mac Cormac says. In addition, the software's configurability has helped conserve development resources. "So any monies that we would have spent customizing the Oracle applications, or the Oracle forms, to do some of the things we wanted, we're able to do it with these tools."

Look on the bright side

SOX compliance undeniably has created a lot of work for companies. But in the three-plus years since it was signed into law, there are plenty of examples where SOX has had a positive affect on the accuracy and security of companies' financial reporting processes.

Micros has used its SOX efforts to streamline company processes. The scrutiny SOX puts on internal processes affords an opportunity to spot inefficiencies in business processes and make recommendations for improving those processes, Micros' Requena says. "We've made quite a few effective recommendations."

Another potential bonus for SOX-governed companies is the opportunity to find money to do projects that have been on IT wish lists for some time. The budget for SOX in many companies is unlimited, McAfee's Homs says. "Whatever it takes, make it happen. I never saw that in all of my career for anything," he says. ■

nww.com

Tips and tools

Check out NetworkWorld.com for more stories about how companies like Bidz.com, Blue Rhino, Congoleum and Qualcomm are tackling SOX.

www.nwdocfinder.com

DocFinder: 2929

E-MAIL NEWSLETTER SHOWCASE: Branch office best practices

Is it time for a chief branch office architect?

BY ROBIN GAREISS

If you talk to 100 companies, you'll hear 100 different organizational structures for their IT departments. I have concluded that organizations need someone creating and coordinating technology strategy for the branch office.

This hasn't been standard practice at many companies. After all, the branch office isn't a broad technology area, such as network, applications, security or infrastructure. It's certainly not a sub-technology area, such as VoIP, MPLS, operating systems or CRM. In those cases, an individual or staff creates strategy and buys and maintains products.

But it's becoming imperative for an individual or a staff to possess a high-level, strategic view of the branch office infrastructure to provide a consistent, predictable experience for remote employees.

For now, branch office decision-makers fall into one of the following categories:

- Central IT/networking/telecom staff. Staff member makes branch office decisions based on his technology responsibility.
- Distributed staff. Branch decisions are made based on individual's location.
- Outsourced. Third party makes all product and service decisions for the branch.
- Single person/staff tasked with branch office responsibility.

An individual or staff makes companywide decisions for all branch office products. This position is very rare.

In these scenarios, except a single person/staff, developing a consistent architecture for all branch offices is difficult because no one has a holistic view of the branch office infrastructure, and no one is setting a comprehensive strategy.

For example, the applications team may decide to buy application acceleration products for some branch offices, while at the same time, the infrastructure team is evaluating similar functionality

wrapped in a services gateway or WAN optimization device. Meanwhile, a business-unit leader may approve the addition of hosted VoIP for his work-at-home sales reps, while the director of telecom

negotiates a deal with a different service provider.

Even with the best efforts, communications falls apart. To ensure a consistent experience for all branch employees, firms should

assign branch office decision making to one person or one staff.

That individual or team would work with the experts in each technology area, allowing the branch office infrastructure to be

more consistent.

Gareiss is executive vice president and senior founding partner for Nemertes Research. She can be reached at robin@nemertes.com.



Looking for the new Wi-Jack™?
The innovative access point that's worth the search.

The original Wi-Jack™ set the standard as the stylish, high-performance wireless access point that blends smoothly into any office décor. The new Wi-Jack raises the bar by disappearing into the décor. While it's hard to find, it easily integrates into the structured cabling system. The new Wi-Jack will be unveiled at Interop Las Vegas. In the meantime, visit www.ortronics.com/newwi-jack for more information.

The search ends at
INTEROP Las Vegas
May 2-4
Booth 141

ORTRONICS

legrand

www.ortronics.com

nww.com

In your in-box

Sign up for this or any of *Network World's* many other e-mail newsletters.

www.nwdocfinder.com/1002

CLEAR CHOICE TEST

Ruckus delivers wireless multimedia performance

BY CRAIG MATHIAS

Multimedia (voice and video) is the next big thing to travel over a wireless LAN. While products designed specifically for multimedia traffic are geared mostly to the residential market, it's clear that improving video quality over a WLAN link will also interest businesses.

Enter the Ruckus Wireless Multimedia System from Ruckus Wireless, which includes the company's MF2900 Multimedia Access Point and the MF2501 Multimedia Adapter. Ruckus says its equipment gets multimedia content from one fixed location in a residence to another (such as a home theater system) with absolute video and audio fidelity.

Ruckus uses a six-element digital beam-forming technique it calls BeamFlex — akin to multiple-input/multiple-output (MIMO) technology — that lets its products select a combination of transmitting and receiving antennae that remains optimal because it changes as the radio environment changes (because of other radio frequency traffic or as people move around near their equipment). Ruckus also embeds firmware called SmartCast, which provides "advanced packet inspection, handling queuing and scheduling" for optimal performance.

The system we compared against Ruckus combined a Linksys router and PCI card. Setting up the two systems via a browser was easy; we changed RF channels and IP

addresses but left all other parameters at their defaults. Wireless Protected Access with Pre-Shared Keys (WPA-PSK) security, the minimum we'd suggest for a corporate environment, was used on both system setups. We noted that the Ruckus client attached via an RJ-45s Ethernet port. We don't believe the differences in the systems affected our results, because network traffic was moving at well below the peak speeds of both interfaces.

In our performance tests (see "How we did it"), the Linksys system turned in a consistent speed of 16.3 Mbps for three test runs, while the Ruckus system produced speeds of 16.5M, 17.1M and 13Mbps. We assumed from these results — given our particular workload, the geometric relationship of the nodes and the environment — that the two systems would yield similar results with typical network-ori-



The MF2900 combines smart antennae and traffic management to provide better multimedia quality.

ented applications.

Ruckus cautioned us that its products are designed for multimedia, not for traditional networking, so we went a step further and ran a subjective evaluation of video quality and performance. Here the Ruckus equipment was uniformly excellent; we noticed no dropouts, glitches or other errors of any form, video or audio that might have detracted from our viewing experience. We watched a clip ripped from a DVD for 3.5 minutes and quickly forgot that we were testing a network. It was that good. But we got identical results from the Linksys

system — flawless video and audio.

It's quite clear that short-range, broadband distribution of wireless is going to be a huge market — big-screen televisions are seldom near the cable or satellite drop. Regardless, networked home media implies a degree of mobility and convenience unavailable with traditional TVs and the tyranny of the set-top box, hence the need for wireless.

We would like to see Ruckus replace the RJ-45s port with component video connectors (and ideally, five-channel audio or even a High-Definition Multimedia Interface connector) to create a true media product. The one consumer-grade video-link product on the market, Belkin's 55000, doesn't use MIMO or another multiantenna technique, resulting often in suboptimal range and video quality. High-definition TV (and the bandwidth it demands) is clearly the future, and we expect to see a broad range of video links based on Wi-Fi, ultrawideband radio, and even, in a couple of years, technologies such as 60GHz millimeter waves.

Ruckus is aiming its products at service providers, so don't look for it on store shelves. We'd love to see it there, because it makes a great wireless bridge (perfect in enterprise environments for computers or other equipment that have only an Ethernet port), even if video isn't on the menu. However, you'll be hearing a lot more about Ruckus, especially as IP TV services begin to take hold.

Mathias is principal at the Farpoint Group, a wireless consultancy. He can be reached at craig@farpointgroup.com.

WIRELESS MULTIMEDIA SYSTEM

RUCKUS MF2900 AND MF2501

Ruckus Wireless www.ruckuswireless.com

NetResults 4.1

MF2900: \$149; MF2501: \$99.

Pros: Great performance, easy to configure.

Cons: Very limited retail availability.

The Breakdown

Performance 40%	4.5
Features 20%	4
Management 20%	3
Installation 10%	5
Documentation 10%	4
Total score	4.1

Scoring Key:

5: Exceptional.

4: Very good.

3: Average.

2: Below average.

1: Subpar or not available.

How we did it

We tested the Ruckus system in our wireless media facility, a combination entertainment and work environment that is completely wireless, except for the AC power coming into the room. We chose a subjective test (perceived video quality) and an objective test (measured throughput) to get a complete picture of the Ruckus system's capabilities. We compared Ruckus with another popular multiple-input/multiple-output (MIMO)-based wireless LAN system that uses a Linksys WRT54GX router (used only as an access point in our test) and a Linksys WMP54GX SRX PCI adapter. Our test geometry involved a linear distance of only about 15 feet, but it did go straight up through two floors and assorted wooden furniture.

The access points and a Dell 4150 server connected to a Linksys EZXS 16W switch. The Dell server was used to host the freeware VLC streaming-video client and server (available at www.videolan.org/), which we used to test

video and audio on both systems. We used the free Iperf benchmark (<http://dast.nlanr.net/Projects/Iperf/>), also installed on the Dell Server, for the raw throughput tests. Throughput was tested by running an Iperf test for two minutes three times. We tested TCP performance, and left all parameters at their default settings — other than the length of the test. The wireless client adapters were attached to a Dell 4500 PC connected to a projector. A DVD in the server streamed wirelessly across the network to the client PC, and we tested subjective video quality, looking for dropouts, latency and other artifacts.

While we normally test wireless clients using turntables (to minimize the possibility of dead spots), there was no need for this, because the system continually tunes itself for the best antenna combination (see www.nwdocfinder.com/2722 for a previous MIMO test we ran). LEDs on top of each unit lit up as the transmission pattern continually changed and adapted.

E-MAIL NEWSLETTER SHOWCASE: New data center strategies

Access control still in a standards disarray

BY ANDREAS ANTONOPOULOS

De-perimeterization describes the erosion of traditional perimeters. Our research indicates that most companies are retrenching and redeploying their perimeter around applications and data residing in the data center.

This new perimeter focuses security controls at the point of access to the data center. The perimeter-of-one strategy layers firewalls, intrusion-prevention systems and anti-malware around every desktop, laptop and handheld computer. Security policies then connect the two perimeters with an access-control policy that checks every endpoint.

The problem is endpoint access control is dominated by proprietary and non-compatible solutions by Microsoft and Cisco. But things may be about to change.

Cisco's Network Admission Control (NAC) and Microsoft's Network Access Protection (NAP) are the two most commonly cited approaches for controlling endpoint access. The two approaches are still not compatible, almost two years after their introduction.

Both vendors seem intent on continuing down diverging paths despite the market demand for broadly interoperable products.

Cisco and Microsoft are taking different approaches to endpoint control. One approach seems to emphasize the network, while the other emphasizes the endpoint.

But NAP and NAC are not the end of the story. An industry standards body, the Trusted Computing Group, has worked with many vendors to develop a common architecture and interface specification for endpoint verification and access control.

The Trusted Network Connect (TNC) working group has published specifications, and many vendors are building standards based endpoint access control. The TNC standard is open and balanced between the network and the endpoint.

TNC is also modular, allowing multiple policy engines to check different aspects of compliance. While the focus has been on anti-malware and operating system patches, there is no limit to the

types of checks that can be implemented in TNC.

The TNC is a working group and a standard. The first TNC products are compatible with NAP and NAC, creating a bridge from those

approaches to open standards.

EndForce, Nortel, Juniper, HP, Symantec, Meetinghouse, Nevis and Consentry have announced products or are in the working group and developing products

around TNC.

Antonopoulos is principal research analyst at Nemertes Research. He can be reached at andreas@nemertes.com.

N-TRON gives you more ways to monitor your Industrial Ethernet network



Introducing N-TRON's 9000 Series GbE Industrial Switch with Advanced Monitoring to bridge the gap between IT and the Factory

N-TRON® manufactures a unique product that bridges the domain between IT and the Factory as far as network monitoring software needs are concerned. Our 9000 Series provides plug-and-play SNMP and Web Browser monitoring for IT, and fully compliant OPC/HMI monitoring for the Factory, all in a ruggedized steel enclosure that is capable of withstanding rigorous environmental conditions.



- **Hardened Environmental Specifications**
 - Extended Temperature, Shock, Vibration, and High Noise Protection
 - High MTBF >1M Hours
 - Redundant Power Inputs
 - High Availability
- **Plug-and-Play Advanced Monitoring**
 - Full SNMP and Web Browsing for IT
 - Full OPC Compliance for the Factory
- **Four Slot Mix and Match Modular Switch**
 - Six Port 10/100BaseTX Modules
 - Two or Four Port 100BaseFX Modules
 - Two Optional Gigabit Fiber Ports
- **Standard Managed Switch Features**
 - IGMP, Link Aggregation, Port Control, Port Mirroring, IEEE 802.1D, 802.1p QoS, 802.3, 802.3u, 802.3x, 802.1w RSTP, 802.1Q VLAN, SNMP, and Web Browsing.

N-TRON
THE INDUSTRIAL NETWORK COMPANY



Visit us on the web @ www.n-tron.com or call (251) 342-2164

nww.com

In your in-box

Sign up for this or any of *Network World's* many other e-mail newsletters.

www.nwdcfinder.com/1002

MILAN

MORE WITHIN YOUR REACH.

MILAN MULTI-LAYER GIGABIT ETHERNET SWITCHES SIMPLY CONNECT THE DEVICES YOU NEED.



MILAN's MIL-SM801 series of layer 2 managed switches provides high performance non-blocking switching.



The ShAir AccessG Pro AP/Bridge: MILAN's new cost-effective, enterprise-class wireless access point.



The MIL-SM2401M Series is MILAN's most powerful, flexible line of Layer 2 management switches.

MILAN makes switching and wireless technology accessible to even more applications, more needs, and more importantly, more people. Transition Networks, the industry leader in product quality, availability and support, now offers MILAN switching and wireless products as a way for small businesses to simply connect the devices they need.

MILAN brings more within your reach, with less of what you don't need.

**MILAN BY
TRANSITION**
NETWORKS®

www.milan.com

800 ~ 526 ~ 9267

MANAGEMENT STRATEGIES

■ CAREER DEVELOPMENT ■ PROJECT MANAGEMENT ■ BUSINESS JUSTIFICATION

Hot IT jobs

Employers look for well-rounded tech talent with application development and infrastructure skills, vertical experience.

BY DENISE PAPPALARDO

If you're thinking about mapping out your next career step, here are some of this year's hottest job skills. One big trend that's affecting certified and non-certified positions is that many large companies are getting to new technology deployments that they had put on the back burner as they focused on complying with rules stemming from legislation such as the Health Insurance Portability and Accountability Act and the Sarbanes-Oxley Act.

Now IT departments are focusing more of their energy and money on creating new products and services, says David Foote, president and chief research officer at Foote Partners, an IT workforce research firm. This has created a backlog of projects that IT departments have to complete.

That's one reason some hot IT jobs include application development, Foote says. According to his firm's research, deployments need employees with customer-facing skills that support new products, services and customer support systems; infrastructure skills in networking, wireless and security; and enabling skills in project planning, management and open source (see graphic).

One company, NPC International, the largest Pizza Hut franchisee in the United States, echoes Foote's findings: Application development and infrastructure skills are at the top of its list of in-demand proficiencies.

"We have been converting most of our application development to Visual Studio; now, with approximately 70% of our development in this environment, we have an ever-growing need for [Visual Studio] developers," says Mike Woods, CIO at NPC in Pittsburg, Kan.

Two other important areas of expertise are "problem-solving skills, such as second- and third-level support, and network engineering," Woods says. "We're interested in IT staff who have network engineering skills

beyond a knowledge of routing tables," he says.

Because these skills are technical, Foote says, employers are putting more effort into retaining employees who have them. Employers who haven't thought about retention programs may be suffering the loss of some top staff after other companies recruit them.

Retention is at the forefront for Woods as he scopes out the market for employees. He points out that his location is challenging as well. "It's not that there aren't a lot of people with the skills needed. It's getting people to relocate from urban markets and then stay," he says. NPC is 90 minutes outside Kansas City. "Longevity, for some, is staying at one job for 18 to 24 months. Most of our people have been here three to five years."

Not only are folks finally getting to projects that had been put off, but they're also thinking about their businesses differently, says Paul Groce, partner and head of the CIO practice at executive search firm Christian & Timbers. "For years Microsoft was the company that other corporations aspired to be like. Today companies aspire to be like Google," he says.

"We're in the return of the Web, and that's driving IT," Groce says. One example is the migration of the call center to contact center, he says. If you're an expert in managing a call center, you probably already have started thinking about new training to prolong your career. If you're a

project manager who can deal with the complexities of mapping out the migration to a contact center, often based on VoIP, you're in a better position.

Cost-cutting skills and regulatory-compliance expertise are less desirable this year than last, according to Foote Partners' research. It's not that employers don't care about reducing expenses, but other skills — improving project-management disciplines and workforce productivity, for example — are more important. One could even argue that those two skills are, in effect, cost-cutting measures that allow you to get more with what you already have.

Experts also agree that employers are hot on vertical experience. It's no longer enough to be a technical expert. "Experience in vertical industries with specific technologies" is in demand, Foote says. If you have experience in finance, you might have more job choices, Groce says. IT staffers are sought after whose backgrounds are in private banking, finance and retirement services. "The American consumer is wealthier than 10 years ago, and as baby boomers move into retirement there is the need for more sophisticated tools to support these consumers," he says.

The demand for storage-area network (SAN) skills also is increasing, Groce says: "Folks that were dealing with 1TB of information are now moving 4, 8, 20 or 30 TB. There is the need to bring in technologists experienced in providing scalable solutions that provide full utilization of mining and leveraging of that data."

Foote also cites SAN skills and management as being in demand this year. He points out that last year SAN experts were making about 8.3% more than the previous year. ■

nww.com

Hot or not

Find out which skills moved up the desirability list this year and which ones dropped in ranking.

www.nwdocfinder.com/2921

Handsome rewards

Salary alone isn't the judge of a hot skill, but here are 10 skills associated with the biggest wage increases in the last six months.

Top five skill certifications:

Check Point Certified Security Administrator	33.3%
CompTIA Linux (Linux+)	16.7%
Microsoft Certified Applications Developer	14.3%
Sun Certified Programmer for Java 2 Platform	14.3%
Check Point Certified Security Expert	12.5%

Top five noncertified skills:

Java 2 platform	28.6%
RFID	22.2%
Visual J++	14.3%
Microsoft .Net	11.1%
Storage-area networks	8.3%

Skilled labor

Foote Partners forecasts these IT skills will be in demand this year.

Customer-facing:

- Applications development/databases
- Rapid application development/Extreme programming
- Web-enabled analytics, management apps
- RFID/location-aware services

Infrastructure:

- | | |
|--------------|----------------|
| • Networking | • Web services |
| • Wireless | • Storage/SAN |
| • Security | • Messaging |
| • Systems | |

Enabling:

- Project planning, budgeting, scheduling, management, leadership
- Business process design, reengineering
- Open source/Linux

SOURCE: FOOTE PARTNERS

Don't Let High-Density Put You Into the Hot Seat...

APC's Air Removal Unit VX helps you keep your cool

Value heat removal for high density equipment in NetShelter® VX enclosures. In a traditional data center where the overall average cooling capacity is adequate but hot spots have been created by the deployment of high density servers, cooling loads within racks can be improved by the retrofitting of fan-assisted devices such as the Rack Air Removal Unit VX. Hot exhaust air that would normally be expelled into the data center is gathered and propelled upwards, where it is ducted directly to the return air plenum. This prevents server exhaust air from recirculating to the front rack and improves Computer Room Air Conditioner efficiency and capacity.



Designed for Netshelter® VX users, the APC Rack Air Removal Unit VX, which fits on 19" racks, gathers and propels exhaust air that would normally be expelled into the data center, upwards where it is ducted directly to the return air plenum.

- Dual A-B power inputs
- Ducted Exhaust System (optional)
- Power or Temperature Controlled Fans
- 3 fans for redundancy
- Zero "U" Solution
- Supports up to 7.5kW per rack
- Compatible with APC NetShelter® VX enclosures only

APC Rack Air Removal Unit VX is available at a new lower price (up to 35% off). Upgrade your APC NetShelter® VX now to support high density server installations. If you're buying new NetShelter® SX racks, see our solutions at www.apc.com.

Price is a limited time offer, BUY NOW!

Also enter to WIN a **FREE** APC Rack Air Removal Unit today.

Visit <http://promo.apc.com> Key Code j798x • Call 888-289-APCC x6842 • Fax 401-788-2797

©2006 American Power Conversion Corporation. All Trademarks are the property of their owners. E-mail: esupport@apcc.com • 132 Fairgrounds Road, West Kingston, RI 02892 USA NA1A5EP-US

APC
Legendary Reliability®

SERVICES WITHIN YOUR REACH FROM ANYWHERE

LOCAL OR REMOTE SERVER MANAGEMENT SOLUTIONS

UltraMatrix™ Remote

KVM OVER IP



MATRIX KVM SWITCH WITH INTEGRATED REMOTE ACCESS OVER IP

- System-wide connectivity over IP worldwide and locally
- Connects 1,000 computers to up to 256 user stations
- Supports PC, Sun, Apple, USB, UNIX, serial devices
- High quality video up to 1280 x 1024
- Secure encrypted operation
- View real-time video from 4 computer connections with quad-screen mode

The UltraMatrix Remote represents the next generation in KVM switches with IP access. It provides a comprehensive solution for remote server access over IP and local as well.

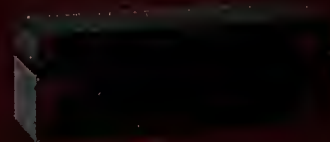
KVM RACK DRAWERS WITH KVM SWITCH OPTION

RackViews offer the latest, most efficient way to organize and streamline your server rooms and multiple computers.

The RackView is a rack mountable KVM console neatly fitted in a compact pull-out drawer. This easy-glide KVM drawer contains a high-resolution TFT/LCD monitor, a tactile keyboard, and a high-resolution touchpad or optical mouse.

UltraMatrix™ E-series

KVM SWITCH



PROFESSIONAL MULTI-USER KVM SWITCH 2 - 4 KVM STATIONS TO 1,000s OF COMPUTERS

- PC or multi-platform (PC/Unix, Sun, Apple, others)
- On-screen menu informs you of connection status between units in an expanded system
- Powerful, expandable, low cost
- No need to power down most servers to install
- Security features prevent unauthorized access
- Free lifetime upgrade of firmware
- Video resolution up to 1600 x 1280
- Available in several models
- Easy to expand

The UltraMatrix E-Series represents the latest in KVM matrix switch technology, at an affordable price. The E-Series allows you to connect up to 256 user stations to as many as 1,000 computers. The UltraMatrix E-Series is available in several sizes: 2x4, 2x8, 2x16, 4x4, 4x8, 4x16, 1x8, and 1x16 in either PC or multi- platform.



XtendVue
Vertical Rack mountable LCD
With Built-in KVM Extender



RackView
Fold-Forward



RackView
Fold-Back



RackView
LCD Monitor



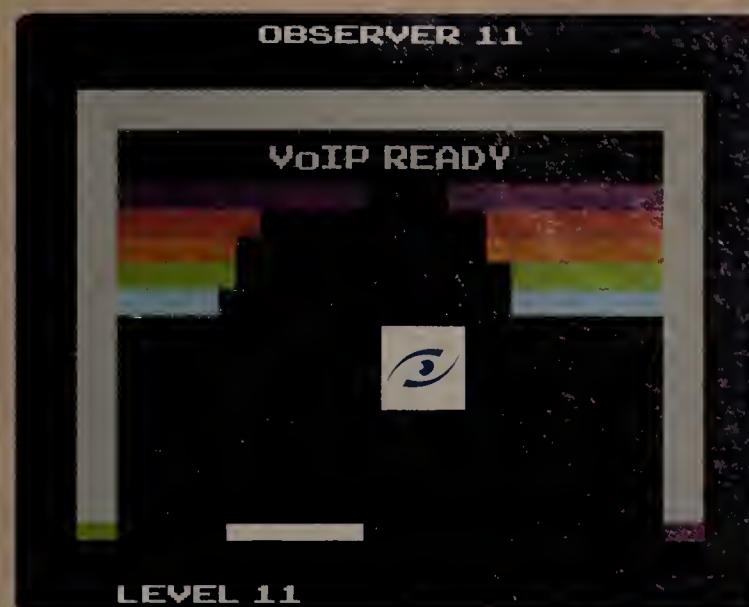
RackView
Keyboard

ROSE US 261 933 7673
ROSE EUROPE +44 (0) 1264 850574
ROSE ASIA +65 6324 2322
ROSE AUSTRALIA +617 3388 1540

800-333-9343
WWW.ROSE.COM

ROSE
ELECTRONICS

Hitting a wall with your current sniffer?



Break through with **Observer 11**. Now with enterprise strength VoIP analysis. New features include an enhanced VoIP Expert, Quality Scoring, Call Detail Records, MultiHop Analysis, and 64-bit Windows support. It's time to reset your analyzer.

Wired to wireless. LAN to WAN. One network – complete control.



US & Canada
toll free 800.526.5958
www.networkinstruments.com/analyze

UK & Europe
+44 (0) 1959 569880



dtSearch® Terabyte Indexer

"Bottom line: dtSearch manages a terabyte of text in a single index and returns results in less than a second" — InfoWorld



Instantly Search Terabytes of Text

Desktop with Spider (\$199)
Network with Spider (from \$800)
Web with Spider (from \$999)
Publish for CD/DVDs (from \$2,500)
Engine for Win & .NET
Engine for Linux

- ◆ over two dozen indexed, unindexed, fielded data and full-text search options
- ◆ **highlights hits** in HTML, XML and PDF, while displaying **links**, formatting and **images**
- ◆ converts other file types (word processor, database, spreadsheet, email & attachments, ZIP, Unicode, etc.) to HTML for display with **highlighted hits**
- ◆ Spider supports static and dynamic Web content, with WYSWYG **hit-highlighting**
- ◆ optional API for C++, .NET, Java, SQL, etc. Ask about new .NET Spider API

Developer Quotes and Reviews

dtSearch vs. the competition:
"dtSearch easily overpowered the document indexing and searching abilities of other solutions, especially against large volumes of documents"

Reliability:
"dtSearch got the highest marks from our systems engineering folks that I've ever heard of"

Results: "customer response has been phenomenal"

"The most powerful document search tool on the market"

— *Wired Magazine*

"dtSearch ... leads the market"

— *Network Computing*

"Blindingly fast"

— *Computer Forensics: Incident Response Essentials*

"A powerful arsenal of search tools"

— *The New York Times*

"Super fast, super-reliable"

— *The Wall Street Journal*

"Covers all data sources ... powerful Web-based engines"

— *eWEEK*

"Searches at blazing speeds"

— *Computer Reseller News Test Center*

For hundreds more reviews and developer case studies, see www.dtsearch.com
Contact dtSearch for fully-functional evaluations

The Smart Choice for Text Retrieval® since 1991

1-800-IT-FINDS • www.dtsearch.com

The Truth about Secure-Out-Of-Band

Terminal server vendors, who proclaim that they have Secure Out Of Band products, rely on RADIUS, TACACS+ and other in-band protocols to provide security. By inference, they imply they secure out of band access when, in fact, they offer only network security, which conflicts with out of band access.

A true Secure Out of Band Management solution should provide strong security without reliance upon network-based protocols.

CDI offers:

- Hardware encryption over dial-up and network connections
- RSA certified SecurID authentication without a network.
- Patented central management of all remote devices

Full NIST, FIPS 140-2 certifications

Remote Power control

Homologous world-wide approved internal modems

CDI has been building encryption equipment for over fifteen years. Our customers and partners include major financial institutions, government agencies, major telcos, utilities, and the United States military.



Communication Devices Inc.
www.outofbandmanagement.com

What's on your Network?

Find out with NetSupport...

Centrally Discover, Support and Manage your Systems. Anywhere.

Do you know where your oldest computer is? Need to locate and upgrade your Windows 98 systems? Are you overpaying on unused software licenses? Which employees are spending the most time surfing the web? Find out fast with NetSupport DNA.

Managing your company's IT assets means more than just selection and maintenance. Reporting, inventory, deployment and forecasting are also part of the job. NetSupport DNA is an easy to use IT asset management solution that provides you with the tools you need to get to know your network.

Unlike other solutions, NetSupport DNA does not require certified training or have a complex implementation path. It offers all of the functionality you'd expect from an award winning asset management suite, but with only a 30 minute implementation path.

NetSupport DNA combines powerful hardware and software inventory with software distribution, application and internet metering, pc remote control, enterprise reporting and a web-based help desk solution.



NETSUPPORT
DNA^{v2}
NetSupport

Visit www.netsupport-inc.com and download a full trial license today. And in 30 minutes start viewing your vital Asset Information.

Sales: 1-888-665-0808
www.netsupport-inc.com

networkTAPs com

TAP Into Your Network

Only a TAP can provide a complete copy of data from full-duplex links at line rate for monitoring devices. Without a TAP, a monitoring device may be fed incomplete and misleading information—creating false positives and overlooking network problems that actually do exist. Visit www.networkTAPs.com/visibility today.



Copper nTAPs

10/100\$395
10/100/1000.....\$995.....\$795



Copper to Optical Conversion nTAPs

SX or LX.....\$1,495



Optical nTAPs

One-Channel.....\$395.....\$295
Two-Channel.....\$790.....\$575
Three-Channel.....\$1,185.....\$845

To learn more about how nTAPs can boost your network visibility, which configuration option is best for you, and to check out new pricing go to www.networkTAPs.com/visibility or call 866-GET-nTAP today. Free overnight delivery.*



*Free overnight delivery on all U.S. orders over \$295 confirmed before 12 p.m. Central Time. nTAP and all associated logos are trademarks or registered trademarks of Network Instruments, LLC.



USED
buy **Sell**
TRADE

1.800.727.1419

1.408.727.1122

www.recurrent.com

info@recurrent.com



3431 De La Cruz Blvd, Santa Clara, CA 95054

ReCURRENT
technologies, inc.

For the latest and most in-depth information on network IT products from these companies and more, go to **VENDOR SOLUTIONS**

www.networkworld.com/vendorsolutions

NETWORKWORLD®

ONE PHONE SYSTEM
for many branch offices

cmck communications
A Citel Company

MCK EXTenders
New, Refurb,
Installation, Support

RICKENBACKER
communications

ph: 978.475.7200 fax: 978.478.6700
www.rickenbacker.com

NETWORKWORLD

Editorial Index

A	
Alcatel	14, 19, 22
Alexsys	50
Approva	50
ArcSight	48
AT&T	14, 43

B	
BelAir Networks	10
BellSouth	14, 43
BMC Software	29
Boingo Wireless	10
BridgePort Networks	10

C	
Cingular Wireless	10
CipherTrust	43
Cisco	1, 12, 16, 60
Code Green Networks	19
Colligo Networks	30
Computer Science Corp.	6

E	
EMC	14

F	
F5 Networks	60

H	
Hitachi Data Systems	14
HP	14, 19

I	
IBM	14, 30, 50

J	
Juniper	1, 12, 14, 16, 60

K	
----------	--

Kineto Wireless	10
-----------------	----

L	
LogicalApps	50
Lucent	14, 19, 22

M	
McAfee	19, 50
MCI	14
Microsoft	6, 8, 16, 19, 27, 29, 35

N	
Net Applications	6
NetScreen	16
Nortel	6, 10

O	
OPSWAT	1, 60
Oracle	8

R	
Red Hat	8
Ruckus Wireless	52

S	
Saba	30
Samsung	10
SBC	14
Skype	19
Sprint Nextel	10
Sun	14
Symantec	19, 22, 60

V	
VeriSign	10, 31
Verizon	14

W	
Webbaroo	1, 61

Network World • www.networkworld.com

ADIC	Microsoft Corp
Adtran Inc	Mimosa Systems
Akamai Technologies	NCS Technology
American Power Conversion	Neon Software Inc
Arbor Networks	NetQoS, Inc.
Arrow Electronics	Network Associates
Avaya - NJ	Network Physics
CDW	Nokia-AK, Inc.
Ciena Corp	Novell
Cisco Systems, Inc.	Oracle Corp
Client Name	Packeteer Inc.
Colubris Networks, Inc	Permeo
Coradiant	Pulver.com
Cyclades Corp	Quest Software
Dell Computer Corp	RoboticsTrends
EMC Corp	SafeNet
Emulex Corp	SAS Institute
FaceTime Communications	Server Technology Inc
Fluke Networks	ShoreTel
Hitachi Data Systems	Siemens Business Comm.
HP - CA	SPI Dynamics
IBM	Spirent Communications
IDG World Expo/LinuxWorld	SSH Communications
Imega	Systimax Solutions
IronPort Systems	Tacit Networks
IXIA	Tripp Lite
KaplanIT	WebSense Inc
Lancope	WiredRed Software
LANDesk	Zultys
LightPointe Communications Inc.	

These indexes are provided as a reader service. Although every effort has been made to make them as complete as possible, the publisher does not assume liability for errors or omissions.

*Indicates Regional Demographic

Network World, Inc.

118 Turnpike Road, Southborough, MA 01772
Phone: (508) 460-3333

TO SEND E-MAIL TO NWW STAFF
firstname_lastname@nww.com

Evilee Ebb, CEO/Publisher
John Gallant, President/Editorial Director
W. Michael Draper, Chief Operating Officer
Eleni Brisbois, Administrative Planning Manager

FINANCE

Mary Fanning, Vice President Finance
Paul Mercer, Finance Manager
Betty Amaro-White, Event Finance Manager

HUMAN RESOURCES

Eric Cormier, Human Resources Manager

CUSTOM MEDIA

Micheel Siggins, Associate Publisher/Custom Media

MARKETING

TerryAnn Fitzgerald, Sr. Director of Customer Experience
Jeanne Seltzer, Marketing Communications Manager
Barbara Sullivan, Senior Research Analyst
Judy Schultz, Marketing Design Manager
Cindy Panzera, Marketing Designer
Deborah Vozikis, Design Manager Online

PRODUCTION SERVICES

Greg Morgan, Senior Director, Production Services
Karen Wallace, Senior Director, Advertising Operations
Mike Guerin, Manager of Production Technologies
JamiThompson, Sr. Production Coordinator
Veronica Trotto, Online Operations Coordinator
Jane Wilbur, Online Ad Traffic Coordinator
Maro Eremyan, Advertising Coordinator
Christina Pankievich, Advertising Coordinator

CIRCULATION

Richard Priante, Senior Director of Circulation
Bobbie Cruse, Subscriptions Manager

RESEARCH

Ann MacKay, Research Director

DISTRIBUTION

Bob Wescott, Distribution Manager/(508) 879-0700

IOG LIST RENTAL SERVICES

Amy Bonner, Account Executive
P.O. Box 9151, Framingham, MA 01701-9151
Toll free: (800) 434-5478 ext. 6026/Direct: (508) 370-0826
Fax: (508) 370-0020

SEMINARS, EVENTS AND IDG EXECUTIVE FORUMS

Neal Silverman, Executive V. P., Events & Executive Forums
Mike Garity, Sr. Director, Marketing & Bus. Development
Dale Fisher, Director of Operations
Jacqueline DiPerna, Senior Event Coordinator
Karen Bornstein, Account Executive
Andrea D'Amato, Sr. National Sales Director
Kristin Ballou-Cianci, Regional Account Director
Jennifer Sand, Regional Account Manager
Cedric Fellows, Regional Account Manager
Grace Moy, Exhibit Sales Manager
Debra Becker, Dir., Marketing & Audience Development
Sara Nieburg, Senior Marketing Manager
Cassandra Valentine, Registration & Customer Service Mgr.
Buster Paris, Marketing Specialist

ONLINE SERVICES

Kevin Normandeau, Exec. Vice President/General Mgr., Online
Dan Gallagher, Sr. Director, Audience Development
Mary McIntire, Sr. Manager, Audience Development
Norm Olean, Director of Business Development, Online
Adam Gaffin, Executive Editor, Online
Melissa Shaw, Managing Editor, Online
Jason Meserve, Multimedia Editor
Sheryl Hodge, Associate Online News Editor
Jennifer Moberg, Online Marketing Program Manager
Chrystie Terry, Manager of Online Audience Development

CLIENT SERVICES

Sharon Stearns, Director of Client Services
Frank Coelho, Client Services Manager
Leigh Gagin, Client Services Manager

INFORMATION SYSTEMS

W. Michael Draper, Chief Operating Officer
Tom Kroon, Director of Systems Development
Anne Nickinello, Senior Systems Analyst
Puneet Narang, Manager of Database Technologies
William Zhang, Senior Software Engineer
Manav Sehgal, Senior Software Engineer
Prashanth Menon, Database Support Specialist
Rocco Bortone, Director of Network IT
Peter Hebenstreit, Senior Network/Telecom Engineer
Brian Wood, Senior Systems Support Specialist
David Mahoney, Systems Support Specialist

BUSINESS SERVICES

Mark Anderson, Business Services Supervisor
Linda Cavanagh, Business Services Administrator

IDG

Patrick J. McGovern, Chairman of the Board
Bob Carrigan, President, IDG Communications

Network World is a publication of IDG, the world's largest publisher of computer-related information and the leading global provider of information services on information technology. IDG publishes over 300 computer publications in 85 countries. One hundred million people read one or more IDG publications each month. *Network World* contributes to the IDG News Service, offering the latest on domestic and international computer news.

Sales Offices

Carol Lesker, Executive Vice President, Sales
Jene Weissman, Sales Operations Manager
Internet: clesker, jweissman@nww.com
(508) 460-3333/FAX: (508) 460-1237

New York/New Jersey

Tom Davis, Associate Publisher, Eastern Region
Elisa Della Rocco, Regional Account Director
Agata Joseph, Sr. Account Coordinator
Internet: tdavis, elises, ejoseph@nww.com
(201) 634-2300/FAX: (201) 634-9286

Northeast

Elisa Della Rocco, Regional Account Director
Internet: elisas@nww.com
(508) 460-3333/FAX: (508) 460-1237

Mid-Atlantic

Jecqui DiBianca, Regional Account Director
Renee Wise, Account Coordinator
Internet: jdibian, rwise@nww.com
(610) 971-1530/FAX: (610) 975-0837

Midwest/Central

Tom Davis, Associate Publisher, Eastern Region
Agata Joseph, Sr. Account Coordinator
Internet: tdavis, ejoseph@nww.com
(201) 634-2314/FAX: (201) 712-9786

Southeast

Don Seay, Regional Account Director
Renee Wise, Account Coordinator
Internet: dseay, rwise@nww.com
(404) 504-6225/FAX: (404) 504-6212

Northern California/Northwest

Sandra Kupiec, Associate Publisher, Western Region
Karen Wilde, Regional Account Director
Courtney Cochrane, Regional Account Director
Venessa Tormey, Regional Account Manager
Jennifer Hallett, Account Coordinator
Cyril Talusan, Account Coordinator
Internet: skupiec, kwilde, ccocrane, vtormey, ctalusan, jhallett@nww.com
(510) 768-2800/FAX: (510) 768-2801

Southwest/Rockies

Becky Bogart, Regional Account Director
Internet: bbogart@nww.com
(949) 250-3006/FAX: (949) 833-2857

Online/Integrated Solutions

Kevin Normandeau, Exec. Vice President/General Mgr., Online
Susan Cardoza, Associate Publisher, Online
Scott Buckler, Online Account Director
Stephanie Gutierrez, Online Account Manager
Debbie Lovell, Online Account Manager
Kate Zinn, Online Account Director
Denise Landry, Account Coordinator
Lisa Thompson, Account Coordinator
Internet: knormandeau, scardoza, sbuckler, sgutierrez, dlovell, kzinn, dlandry, lthompson@nww.com
(508) 460-3333/FAX: (508) 861-0467

MARKETPLACE/EMERGING MARKETS

Donna Pomponi, Director of Emerging Markets
Enku Gubaie, Manager of Marketplace/Emerging Markets
Caitlin Horgan, Manager of Marketplace/Emerging Markets
Chris Gibney, Sales Operations Coordinator
Internet: dpomponi, egubaie, chorgan, cgibney@nww.com
(508) 460-3333/FAX: (508) 460-1192

NetworkWorld®

Events and Executive Forums

Network World Events and Executive Forums produces educational events and executive forums worldwide, including our one day Technology Tours, customized on-site training, and executive forums such as DEMO®, DEMOmobile®, and VORTEX, as well as the DEMOletter and VORTEX Digest newsletters. For complete information on our current seminar offerings, call us at 800-643-4668 or go to www.networkworld.com/events.



1900 x128 or E-mail: networkworld@reprintbuyer.com.

Publicize your press coverage in *Network World* by ordering reprints of your editorial mentions. Reprints make great marketing materials and are available in quantities of 500 and up. To order, contact Reprint Management Services at (717) 399-



OPSWAT

continued from page 1

security software brands out there.

Vendors such as Cisco, F5 Networks, Symantec and Juniper Networks license the OPSWAT code that checks for more than 400 versions of security software from more than 35 vendors. They embed the code, a software development kit (SDK), into their network-access control products (see list, below).

This has made OPSWAT (which informally stands for Omni-Platform Security with Access Technologies), a security vendor to security vendors, supporting methods of network-access control ranging from Microsoft's Network Access Protection to Cisco's Network Admission Control.

The anti-virus answer

"What is anti-virus, is the question," says Czarny, a 34-year-old computer science graduate of

Israel's Technion, Israeli Institute of Technology, who confesses to being a "bit nerdy" in his fascination with software code, which he started programming when he was 11 years old. "Anti-virus is configuring a system to scan and update."

Every anti-virus vendor, Czarny says, accomplishes this a different way — sometimes even differently in separate versions of the same product.

The API is supposed to be the direct path into how products work, so OPSWAT licenses every virus package it can find and seeks business relationships with as many vendors as it can to obtain the APIs.

But that approach doesn't always work.

"Sometimes vendors are open, sometimes they hide things," Czarny says. And he adds about the much-desired APIs: "Sometimes they just don't have them."

When OPSWAT meets those kinds of barriers, its software engineers in the United States and Israel have to dive into the security code using their own methods to be able to add the anti-virus software to the OPSWAT framework, which is basically an API for all other APIs.

Part of OPSWAT's mission is to uncover new anti-virus and anti-spyware companies. While McAfee, Symantec and Trend Micro have practically become household names in the United States, there are younger firms — such as Beijing Rising Technology, KingSoft and Jiangmin in China, and MicroWorld in India — that OPSWAT also works with.

"The reason we're contacting them is we have prospective customers based in East Asia that says these companies are important to our market, and we expect you to support them," says Tom Mullen, OPSWAT's vice president of business development.

Getting through the language barrier is a struggle, because the OPSWAT engineers don't speak Mandarin or other Asian languages, but sometimes OPSWAT's large global customers help with translation, Mullen says.

Several of OPSWAT's vendor clients, including Cisco, Lockdown Networks and Juniper, demur at discussing the developer's role in their products. But F5 gave credit where it is due.

A year ago F5 embedded



Benny Czarny: The man behind the company behind the security companies.

OPSWAT software in its FirePass SSL VPN gateway and client software to quickly add a security-check function that customers wanted.

"In an access scenario, a user would log on and perhaps provide credentials, perhaps just a simple password," for authentication, says Hari Krisnan, product manager at F5. "Now, before allowing access, FirePass can check the integrity of the client device for use of anti-virus software, for the latest signature files or just make sure patches are installed."

If FirePass determines a client machine doesn't meet security policy, that machine can be quarantined on a network for remediation purposes. (OPSWAT notes that its code is limited to the health check, and doesn't play a role in quarantine or actual remediation).

F5 turned to OPSWAT for help on the health-check portion of network-access control because "there are so many versions and vendors of anti-virus products to be supported, and a wide range of firewalls," Krisnan says.

Without OPSWAT, the software-development process would have been long and tedious. By licensing the code, which can check a desktop using a Java or ActiveX applet, F5 was able to comprehensively add health-check functionality, he says.

OPSWAT licenses its code directly to only two customers: California State University, Fullerton, and Microsoft.

While Microsoft wouldn't discuss what it's doing with OPSWAT, Sean Atkinson, California State Fullerton's network analyst, says the college two years ago licensed OPSWAT's software and mandated that staff and faculty

working at home to use the VPN and to update anti-virus software.

"We use a Microsoft server for the quarantine," he says. "We're saying, 'we're not allowing you access to the campus network anymore without this [OPSWAT software].'"

The software works by informing users whether they meet security requirements. Atkinson says he knows OPSWAT is small, but its tech support has been good, and he has volunteered the college for beta tests of new versions.

Czarny says having Fullerton as a customer has helped gain attention from some larger ven-

dors as the idea of policy-based access control gained sway in the industry a few years ago. But OPSWAT's focus will remain on development work for vendors, not users, he says.

For vendors embedding the code into their products, there is risk that a competitor with deep pockets could swoop in and buy OPSWAT, some analysts warn.

"OPSWAT is in the right place at the right time," says Gartner analyst John Pescatore. "But there is the risk that some player could grab it, and there would be a period of time the licenses are valid; that might end."

Others, including Joel Snyder, senior partner at consulting firm Opus One, says such fears are overblown. If OPSWAT gets gobbled up, he notes, another firm will come along to take on the task of pouring over endless numbers of security software products to support them in an API-based framework, if the need remains.

Perhaps so, F5's Krisnan says, but he hasn't seen one yet.

As for Czarny — whose hobbies include running the New York marathon — he says he's in OPSWAT for the long run and has no plans to sell out. ■

OPSWAT inside

Products that include OPSWAT technology.

- Cisco's Clean Access NAC Appliance
- EndForce - EndForce Enterprise
- F5 Networks FirePass SSL VPN
- IPDiva SSL VPN
- iPass GoRemote
- Impulse SafeConnect Security Assistant
- Juniper Networks SSL VPN security appliances
- Lockdown Networks Network Access Control
- Looking Glass Systems LG Vision
- Serenti Smart Home Networking service
- Symantec Whole Security Confidential Online

Note: 40 other undisclosed vendors use the Opsis or VPNGuard software development kits in their products.

Multitasking

What OPSWAT SDKs can do:

- Identify 400 versions of anti-virus, anti-spyware, VPN, anti-spam and anti-phishing software from 35 security vendors.
- Enforce patch updates.
- Monitor programs running on endpoints before granting network access.

nww.com

Security event

Application and content security means more than a password and a firewall. It requires layered protection, perpetual scanning of all Web, SMTP, IM and FTP traffic, total defense in depth — the topics of Application & Content Security: Building a Defensible Network, the new Network World LIVE Technology Tour event for May. Register now and qualify to attend free. www.nwdcfinder.com/3421

■ **Network World**, 118 Turnpike Road, Southborough, MA 01772-9108, (508) 460-3333.

Periodicals postage paid at Southborough, Mass., and additional mailing offices. Posted under Canadian International Publication agreement #40063800. Network World (ISSN 0887-7661) is published weekly, except for a single combined issue for the last week in December and the first week in January by Network World, Inc., 118 Turnpike Road, Southborough, MA 01772-9108.

Network World is distributed free of charge in the U.S. to qualified management or professionals.

To apply for a free subscription, go to www.subscribe.nww.com or write Network World at the address below. No subscriptions accepted without complete identification of subscriber's name, job function, company or organization. Based on the information supplied, the publisher reserves the right to reject non-qualified requests. Subscriptions: 1-508-490-6444

Nonqualified subscribers: \$5.00 a copy; U.S. - \$129 a year; Canada - \$160.50 (including 7% GST, GST#126659952); Central & South America - \$150 a year (surface mail); all other countries - \$300 a year (airmail service). Four weeks notice is required for change of address. Allow six weeks for new subscription service to begin. Please include mailing label from front cover of the publication.

Network World can be purchased on 35mm microfilm through University Microfilm Int., Periodical Entry Dept., 300 Zeeb Road, Ann Arbor, Mich. 48106.

PHOTOCOPYRIGHTS: Permission to photocopy for internal or personal use or the internal or personal use of specific clients is granted by Network World, Inc. for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of \$3.00 per copy of the article, plus 50 cents per page is paid to Copyright Clearance Center, 27 Congress Street, Salem, Mass. 01970.

POSTMASTER: Send Change of Address to **Network World**, P.O. Box 3090, Northbrook, IL 60065. Canadian Postmaster: Please return undeliverable copy to PO Box 1632, Windsor, Ontario N9A7C9.



Copyright 2005 by Network World, Inc. All rights reserved. Reproduction of material appearing in Network World is forbidden without written permission.

Reprints (minimum 500 copies) and permission to reprint may be purchased from Reprint Management Services at (717) 399-1900 x128 or networkworld@reprintbuyer.com.

USPS735-730



BACKSPIN Mark Gibbs

The theory of alternate meetings

Hang on! I've been in this meeting before! I have! It's the same group of people, we're just weeks away from launch and these looneys want to change everything!

Why do they always want to improve things when we're about to go live? They're nuts! The marketing guys want these bizarre new features, while the developers want to change the underlying architecture, and somehow no one seems to see the obvious — that they're turning something that might just work into something that probably won't work. Sigh.

But how could this meeting be so similar to pretty much every meeting in every company I have ever worked for? Sure, the participants look a bit different each time — some older, some new faces, a different conference room, doughnuts instead of bagels, non-dairy creamer instead of real milk, excitement in the air instead of desperation — but the core of the meeting is almost the same as the last one.

But wait. Maybe that's it. Each subsequent meeting is a little different (or weirder, depending on how you think about it) from the preceding one, and they get more different the further apart they are.

Now, I've read there's a theory of parallel universes that goes like this: If we assume that totality — life, the universe and everything — is infinite (and given what we

know, it would seem to be a good assumption), then there is a 100% certainty that every permutation of everything possible exists. One of the favorite "multiverse" ideas, the Open Multiverse model, is described (www.nwdocfinder.com/2942) as "a generic prediction of cosmic inflation [which] is an infinite ergodic universe, which, being infinite, must contain Hubble volumes realizing all initial conditions — including an identical copy of you about $10^{10^{29}}$ meters away."

So here's my thinking: What if, without knowing it we slip from one universe to another and therefore in and out of the same meetings shifted in time and space, which is why they all seem more or less the same?

And what if, as we slip from one to the other, we get farther away from where we started, and maybe the conditions of the meetings slowly get less probable compared with those in the universe we started from? That explains it! That's why the meetings seem similar but also keep getting weirder!

That might also explain why, for example, Windows gets progressively more complex and why Java is such a mess. These are things that shouldn't get more chaotic, but despite all logic do.

Hmmm. But how do we account for Linux, Perl, Python or Ruby? I guess those things came from alternate universes that I didn't start from. If those universes are closer to this universe than mine is (or should that be "was"?),

then they are newer and less cluttered.

That's interesting, because if the developers on the other side of the table are really a long way from the universe where they started, it would explain why they seem so alien. I swear I wouldn't be surprised to find that they're all wearing latex face masks to hide their stalked eyes.

And all the marketing guys ... I know! They are pod people from some weird, alternate universe a really huge distance away. Wow. No wonder things seem so strange around them.

So if I can get back to my own universe, everything should make a lot more sense! All I have to do is figure out which meeting to go to. Perhaps it is the meetings in young companies that take you away from the reality you started in, because the gods know they are the weirdest ones.

So to get back to where I started, I need get into meetings that are in older organizations. I know! I need to join a really old government department and get involved in the oldest committees I can find. Oh hell, if I do that, then where would the fun be?

OK, back to battle. Are you guys from another universe? If you change the UI at this late date we're risking everything ...

Join the blogoverse at [Gibbsblog](http://Gibbsblog.com) or send your reality over to backspin@gibbs.com.



Paul McNamara

NETBUZZ News, insights and oddities

Net Buzz

continued from page 1

It wasn't that long ago that a laptop with an 80GB hard drive seemed crazy too. But ever-more-monstrous drives are common today, and they serve as the founda-

tion on which Webaroo is basing its free, ad-supported search service. The company and service emerge from stealth today, armed with a flashy bundling agreement from laptop maker Acer.

"It's not inconceivable that a couple of years from now laptops are going to have 400 or 500GB drives in them," says Husick, who co-founded Webaroo in 2004 with CEO Rakesh Mathur and CTO Beerud Sheth. "What if you could take that space, and it would be enough to carry the Internet with you? If you think about searching the Web without being tied to a connection of some kind — and then periodically connecting to get refreshed — that was the kernel of our idea. How do you put the Web on a hard drive? ... That's why it was so crazy."

The first thing to acknowledge is that the phrase "put the Web on a hard drive" is not to be taken literally. As Husick explains: "Let's say the HTML Web is 10 billion pages — it's actually a little less than that — but at 10K per page that's 1 million gigabytes, also known as a petabyte. It's going to be a long time before notebooks have million-gigabyte hard drives. So how do you get a million gigabytes down to what you need?"

Webaroo does it, he says, through "a server farm that is of Web scale" and a set of proprietary search algorithms that whittle the million gigabytes down to manageable chunks that will fit on a hard drive: up to 256MB for a growing menu of Web packs on specific topics — favorite Web sites, city guides, news summaries, Wikipedia and the like — that make up the service's initial offerings; and something in the neighborhood of 40GB for the full-Web version set for release later this year.

"We've developed these algorithms that give you a set of meaningful, relevant results for anything on which you search," Husick says. "In effect, we give you the first couple pages of results."

That's all you really need, the company says, because studies show that most people

rarely look beyond the first 10 to 20 results returned by a typical search. Webaroo returns not just a list of pages but the pages themselves — with all graphics intact — as well as key live links from those pages and the pages to which they lead. They're talking roughly 10,000 pages per Web pack, or plenty to provide a meaningful search experience for whatever is the subject matter at hand, Husick says.

Users must download and install 5MB of Webaroo software to get started and then sync up with the Webaroo service site to refresh the content in their topic-specific packs or later this year, the full-Web version. Husick says these updates take only minutes, but I'm already seeing corporate network managers wincing at the notion of this application sweeping the workplace.

All in all, though, there's no denying the wow factor here.

"It's kind of surprising that nobody else has done something like this," says Rob Enderle, president of the Enderle Analyst Group. "It's one of those things that a lot of folks will download."

Enderle believes the service could be a big hit among those whose jobs regularly take them away from their 'Net connections — frequent fliers, for example. "It's going to be a while before hot spots are in all the places we need to have them," he says.

Which isn't to say that ever-more-ubiquitous 'Net connections won't pose a challenge to the Webaroo business model.

"Long term, their opportunity may have more to do with [search] performance" than the offline capability itself, Enderle says.

Husick tells me that notion was reinforced by a rousing reception the service received from Japanese mobile operators, who he says were salivating over Webaroo as a means to siphon search traffic away from their wireless broadband networks.

Webaroo also is touting the potential cost savings and convenience of its service.

"Every hotel I go to wants to charge me \$10 to \$15 a night for Internet. Every airport wants to charge me another \$10 to get connected," Husick says. "If I've got five minutes before I have to board my flight, do I want to spend that five minutes connecting, or do I want to spend five minutes getting my search answer?"

You still need a 'Net connection to send me e-mail. The address is buzz@nww.com

IBM®





_INFRASTRUCTURE LOG

_DAY 35: Whoa! Came in today and found a black hole. Information goes in but doesn't come out. This is bad.

_DAY 36: The black hole just sucked in three interns. HR is not pleased.

_DAY 38: I've taken back control with IBM Information Management middleware. It's built on open standards. Totally scalable. Seamlessly unites all our critical information, whatever its source. Now our info has real business value, and we can use it in innovative ways to help spur growth.

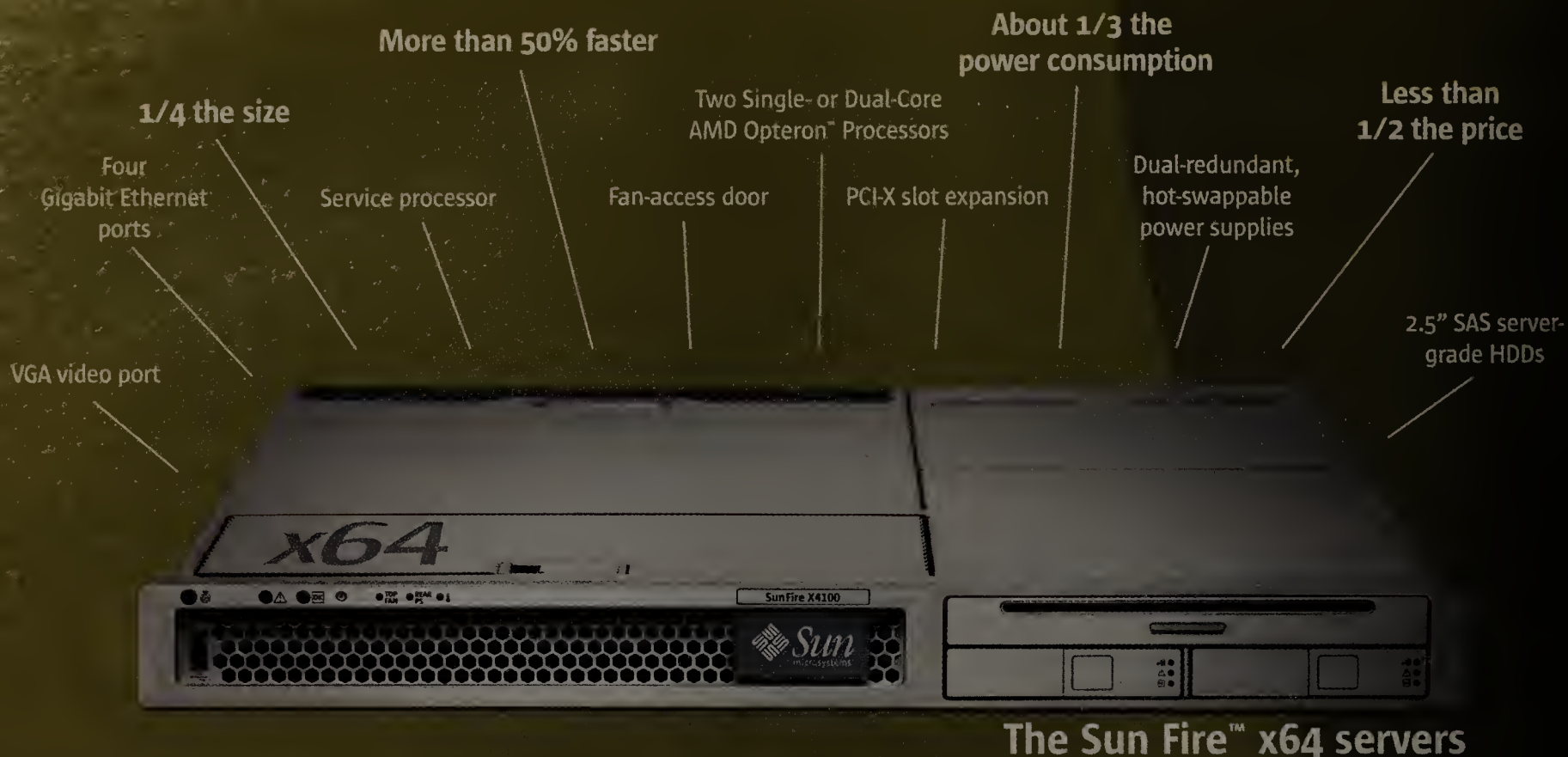
_We got everything back from the black hole. Except the interns.

Information Management

See innovative IBM Info Management solutions in action:
IBM.COM/TAKEBACKCONTROL/INFOMGMT



share



OH, ONE MORE REASON WHY IT'S THE NEW STANDARD IN
x64 INDUSTRY STANDARD SERVERS: IT STARTS AT ONLY \$2,195.

SERVER FACTS:

	Sun Fire™ X4100	Dell PE6850
57% FASTER ¹	SPECfp_rate2000: 82.4	SPECfp_rate2000: 52.5
1/4 THE SIZE	1U	4U
ABOUT 1/3 THE POWER CONSUMPTION	550 watts	1,470 watts
CERTIFIED FOR THE TOP 3 OSs	Solaris, Linux, Windows	Linux, Windows
LESS THAN 1/2 THE PRICE ²	\$2,195	\$4,949

Buy today at sun.com.



© 2006 Sun Microsystems, Inc. All rights reserved. AMD, the AMD logo, AMD Opteron combinations thereof, are trademarks of Advanced Micro Devices, Inc. SPEC, SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. Results from <http://www.spec.org>, as of 02/15/06.
²U.S. list price. All prices quoted are in U.S. dollars.